

FLIGHT

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AND AIRSHIPS

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DIARY OF CURRENT AND FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in this list—

1930

Sept. 9-15 ..	Demonstrations of Night Flying by Airwork, Ltd., Heston.
Sept. 13 ..	N.F.S. Air Pageant, Tollerton, Nottingham.
Sept. 13-15 ..	Antwerp International Aviation Meeting.
Sept. 14 ..	N.F.S. Air Pageant, Leeds (Sherburn-in-Elmet).
Sept. 17 ..	Institute of Patent Agents and Mrs. Griffith Brewer's Garden Party at Hanworth.
Sept. 17-21 ..	Belgian Light Aeroplane Competition.
Sept. 19-20 ..	Flying Week-end at Llandudno.
Sept. 20 ..	Lancashire v. London Gliding Match.
Sept. 27 ..	N.F.S. Air Meeting, Hanworth.
Oct. 4 ..	Surrey Ae.C. Meeting, Gatwick Aerodrome.
Oct. 9 ..	Lecture, "The Growth of Aviation," by C. R. Fairey, before R.Ae.S.
Oct. 23 ..	Lecture, "Air Transport in Fog," by F. W. Meredith, before R.Ae.S.
Nov. 13 ..	Lecture, "Testing the Control of Aeroplanes," by H. L. Stevens, before R.Ae.S.
Nov. 20 ..	Lecture, "Recent Developments in Engine Cooling," by Capt. H. Swan, before R.Ae.S.
Dec. 4 ..	Lecture, "The Four-Foot Wind Tunnel," by H. Glauert, before R.Ae.S.
Dec. 11 ..	Lecture, "Axial Engines," by M. L. Bramson, before R.Ae.S.
Nov. 28- Dec. 14	Paris Aero Show.
1932	
May 31 ..	Closing date for Cellon Cross-Channel Glide £1,000 Prize.

EDITORIAL COMMENT



THE recent suggestion made in the House of Lords that the Royal Air Force should take a greater share than before in policing the frontiers of the British Empire has been followed pretty promptly by the Afridi outbreak on the North-west Frontier of India, and the strenuous employment of the R.A.F. squadrons there in attempts to bomb the *lashkars* and the villages from which the tribesmen come. In consequence, a lively discussion has been

The R.A.F. and the N.W. Frontier

taking place in the press as to whether these Frontier happenings have strengthened or weakened the case for more air control. Until we receive some really authoritative and official report, there is very little profit in arguing about the matter. For various reasons the reports of war correspondents do not help us very much. Confusion becomes worse confounded if we get tangled up in the controversy between the "old-fashioned Army" school and the "full-blooded air" school. We must admit that there are some Army officers who would rejoice to see the aeroplane prove ineffective, and who would exaggerate any incident that might seem to strengthen their case. On the other hand, there are air enthusiasts who are so keen to "sink the lot and sack the lot" of the two older services, that their arguments must be equally suspect. Each case and each incident should be examined on its merits and stripped of possible bias, but a true bill should not be discounted because the teller may be prejudiced. At present we have not enough data to justify a definite conclusion.

It does, however, seem probable that the circumstances of the North-west Frontier of India impose limitations on the profitable employment of aircraft which are not found in countries such as Iraq, Aden, and the Sudan. Plains, rolling country, deserts all go to enhance the military value of aircraft. Mountains create difficulties for them. When war is in the gates, one does not think so much of the actual flying difficulties or of the results of a forced landing. Peace is the time for grappling with such problems. In war one considers only the results of air action.

On the Frontier the aeroplane must always be a very valuable adjunct to the Army. It is, in the main, a watch tower. It enables the general to see what is on the other side of the hill—or, at least, it tries to do so. On occasions, probably very rare occasions, it spots a number of tribesmen in a mass, and has a shot at them with a bomb and with its machine guns. It also attacks the villages, herds and crops of the tribesmen, and success in that line is effected much more cheaply than when an infantry column has to undertake the work.

None the less, two factors hamper the pilot in an aeroplane. The first is that the tribesman is difficult to see, and the second is that he is difficult to hit. Pathans on *lashkar* do not wear uniform. They are clad in robes of dirty-white cotton, which from a short distance look exactly like the rocks with which the hillsides are strewn. The protective colouring is well-nigh perfect. From a height of, say, 2,000 ft. they must be almost completely invisible. If a number of Pathans is spotted, what happens? They have necessarily heard the engine long before the pilot has seen them, and have usually had time to scatter. They have no transport and no lines of communication. A very few seconds allows them to scatter among the rocks. A bomb may be lucky enough to bag a few of them, but its effect must be very local. The slope of the hillside emphasises the old saying that a miss is as good as a mile.

Possibly a tribe which was only half-hearted, or was unused to bombing, might be daunted by a few casualties, but a *lashkar* in real earnest will laugh

at the smallness of the casualty list. Pathan troops have proved that they could hold a shelled trench in Flanders when the butcher's bill was infinitely higher than it is ever likely to be from air bombing on a frontier hill. Even the destruction of villages has less effect on the Pathan than on most other people. They are poor men with little to lose, and they are less upset by the loss of their all than a rich man would be by an extra sixpence on the income tax.

It may be said that the intangibility of a Pathan *lashkar* tells against Army action as much as against air action, but this is not the case. There is no temptation to do anything except scatter when an aeroplane is heard above; but the presence of an army invites them to make a fight of it. When they are really in earnest, Pathans have often come to grips with the troops of the Indian Army, and a sharp defeat after a good fight usually puts an end to the trouble. There has been more than one Culloden fought on the Frontier.

We shall think no less of the Royal Air Force if authoritative reports on this Afridi trouble show that once the tribesmen mean business the air squadrons can be regarded as no more than a useful auxiliary to the army. That will not alter the fact that Iraq and similar countries can be effectively controlled by the Royal Air Force more easily and more cheaply than by any other service. The best service which all students of war can do to the air force is to preserve a sense of balance, to realise that our newest weapon is more effective in some circumstances than it can possibly be in others, and not to make extravagant claims for it or extravagant charges against it.

The International Air Congress

THE International Air Congress concluded its sittings at the Hague on September 6. The Congress passed several resolutions in favour of close co-operation and development in international aeronautics. During the sittings the gold medal of the Dutch Air Association was presented to Major Kingsford-Smith for his use of a Dutch aeroplane for his flight to America. The next Congress is to be held in Paris in 1934.

Night Air Mails to the Continent

BOTH the Air Ministry and the Postmaster-General are understood to have replied sympathetically to the proposals of the Civil Aviation Section of the London Chamber of Commerce for the provision of non-stop night-flying air mail services to Continental capitals like Oslo, Stockholm, Warsaw,

Budapest, Rome, and Madrid. These proposals were referred to in our issue for August 22 last. In his reply the Postmaster-General, it is stated, agrees with the view of the proposers that the full benefit of the high speed of air transmission will only be secured so far as mails are concerned when an extensive system of night air mail services is in operation, especially within distances of about 1,000 miles from the starting point.

Persia Wants Military Aircraft

AN invitation has been issued to various foreign countries by the Persian Government for aircraft to be sent to Persia next month, with a view to placing orders for military machines to supplement the existing Persian Air Force. On behalf of Great Britain, the R.A.F. in Iraq will send four machines, while it is expected that France and Italy will also send machines.



A VISITOR TO THE LEICESTER MEETING: The Saunders-Roe "Cloud" (described in our issue of July 25) in its amphibian form, is a very comfortable six-passenger machine, fitted with two Wright "Whirlwind" engines. The machine is quite exceptionally easy to fly, and, in fact, all but flies itself. (Flight Photo.)

Desoutter

Mark II



SHEER bad luck prevented the new Desoutter monoplane, Mark II, from doing justice to itself in the race for the King's Cup on July 5. After averaging a speed of 120.5 m.p.h. from London to Manchester, the machine ran into a hedge and damaged its propeller enough to put it out of the race. But for this mishap—one of those that

might befall any machine and any pilot, and which in no way detracts from the merits of the machine—the Desoutter can reasonably be assumed to have had a fair chance in the race. As it was the first appearance of the machine in public, it was regrettable that it did not finish the race. However, there is consolation in the fact that the failure was due neither to machine nor engine.

The Desoutter, Mark II, is in all essentials identical with the Mark I, which has proved so successful. It shows the same form of construction, generally speaking the same aerodynamic characteristics, and finally it will sell at almost the same price as the older model. Certain modifications have, however, been made which have greatly improved not only the appearance of the machine, but also to a considerable degree its performance. The main changes made in the

design of the Mark II are: The fitting of an inverted engine, the narrowing of the nose of the fuselage, taking about 6 in. off the fuselage depth without reducing the sitting headroom, and the redesigning of the ailerons and tail surfaces. Of other improvements which, however, will be optional and at extra cost, mention may be made of the fitting of wheel brakes.

(Had these been fitted on the King's Cup machine, the mishap might have been avoided).

The Desoutter, Mark II, is a full-cantilever monoplane (the wings do not fold), mainly of wood construction. The fuselage is built up of a light framework covered with plywood, and the wing, of the simple two-spar type, is also a framework of wood covered with plywood. The manner in which the fuselage is suspended from the wing is unusual, and as it is not very obvious from an external examination of the machine it might readily escape

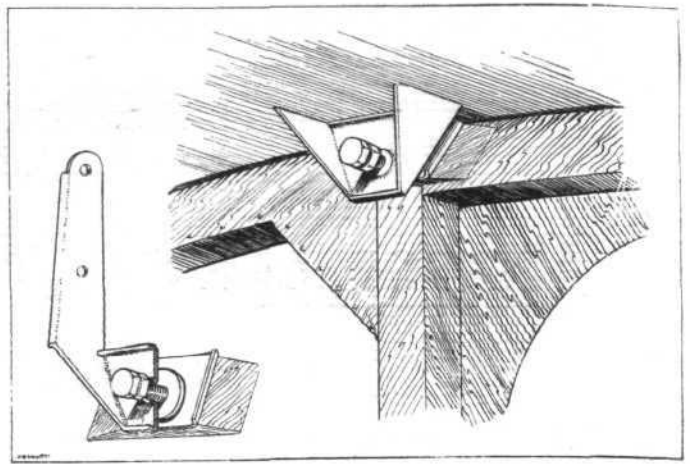
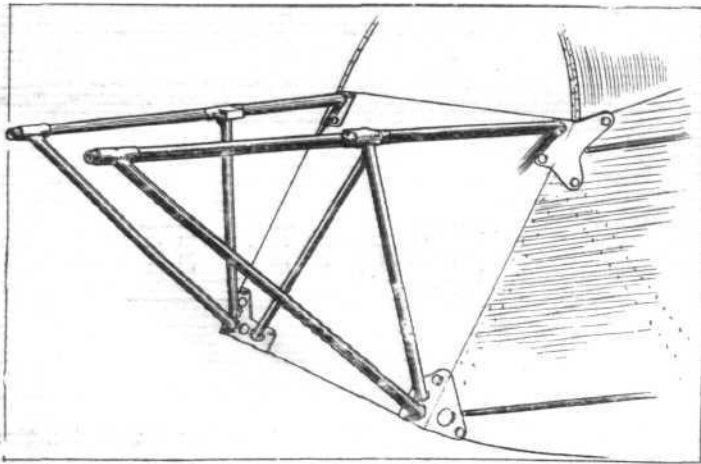
the notice of a casual onlooker. In effect the fuselage is suspended from the wing *not* at the top corners of the fuselage, as is usually done, but from the points outboard on the wing at which the steel struts are attached to the spars. In the earlier model the wing was located in relation to the fuselage by a fore-and-aft horizontal



VIEW : This illustration of the nose of the Desoutter Mark II, indicates the excellent view obtained by the pilot in the latest model. The engine is a Gipsy III. (FLIGHT Photo.)



THE DESOUTTER MARK II : Three-quarter Front View. (FLIGHT Photo.)



THE DESOUTTER MARK II : On the left the very simple engine mounting, of welded steel tube, and on the right details of the manner in which the wing is located on the fuselage. (FLIGHT Sketches.)

bolt free to move slightly up and down in a vertical slot, on the centre line of the wing. In the Mark II machine a somewhat different system has been adopted, details of which are shown in one of the sketches above. Steel fittings on the spar project down below the level of the covering, and carry small transverse bolts with washers on one end. These bolts can be adjusted by means of locknuts and secured in any position, leaving just sufficient gap between the washer and the side of the fuselage at the top longeron. With one of these fittings on each side, the central portion of the wing is free to deflect slightly under load, but the wing as a whole cannot shift laterally in relation to the fuselage. By having the actual wing supports outboard, the load distribution in the spars becomes more economical and weight is saved.

The alterations in the design of the fuselage of the Desoutter Mark II affect the performance and appearance of the machine, but not the structural principles involved, which remain the same as in the Mark I. The fuselage depth has been reduced by 6 in., the bottom having been raised by that amount. This has not reduced the head-room in the cabin as far as sitting is concerned. It merely means that the seats are placed lower over the floor. The general effect on the appearance of the machine is quite pronounced. The Mark I Desoutter rather gave one the impression of a fuselage too large for the size of the wing. In the Mark II this impression has quite disappeared, and the fuselage looks quite slender, surprisingly so in view of the fact that the amount of reduction in the depth is but 6 in.

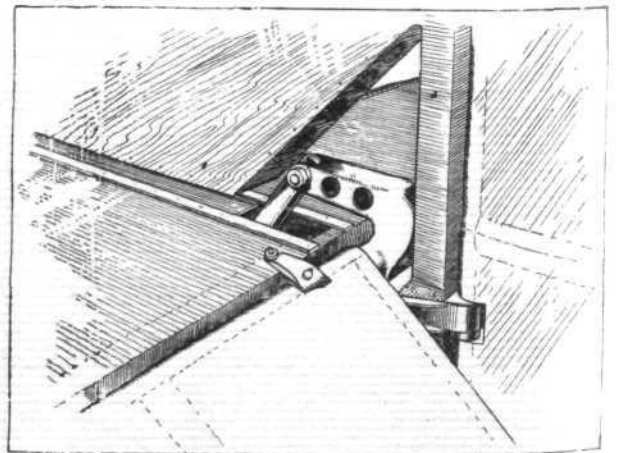
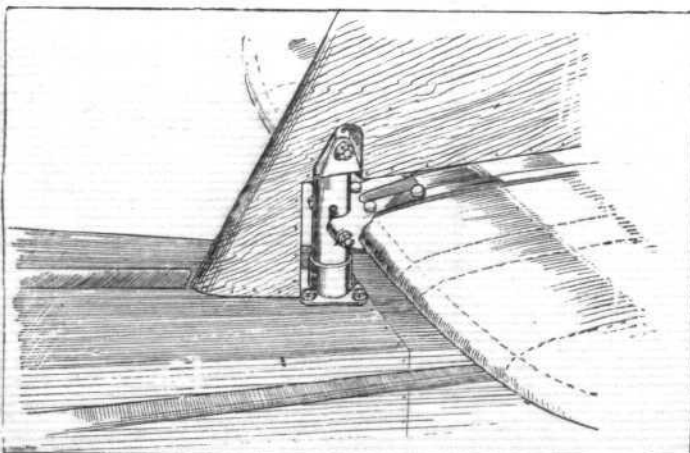
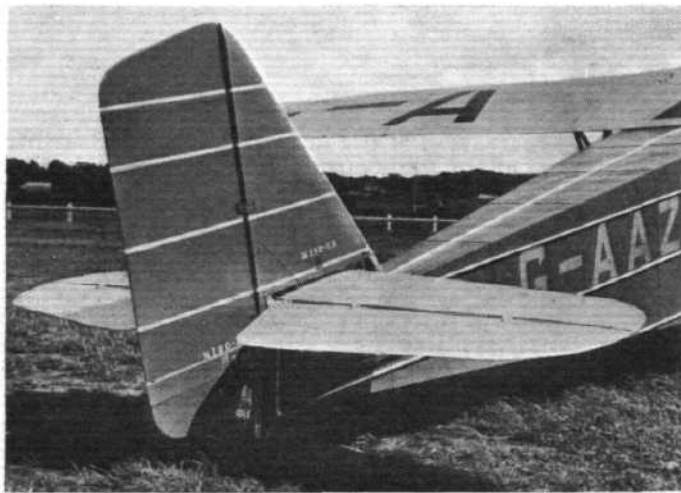
The cabin accommodation itself has been but little altered, the pilot still being seated in front and the two passengers behind him, side by side but very slightly staggered in relation to each other. The nose of the machine has, however, been narrowed considerably as a result of the fitting of an inverted engine, and the windows and windscreen have been extended downwards accordingly, so that the view is much improved, being in fact extremely good.

The cantilever monoplane wing remains practically unaltered, but the wing tip has been given a slightly better shape, and the ailerons are of narrower chord, or rather they are now parallel, whereas in the Mark I they were of greater chord at the root than at the tip. This change has made the load on the stick smaller, and the yawing moment is also reduced.

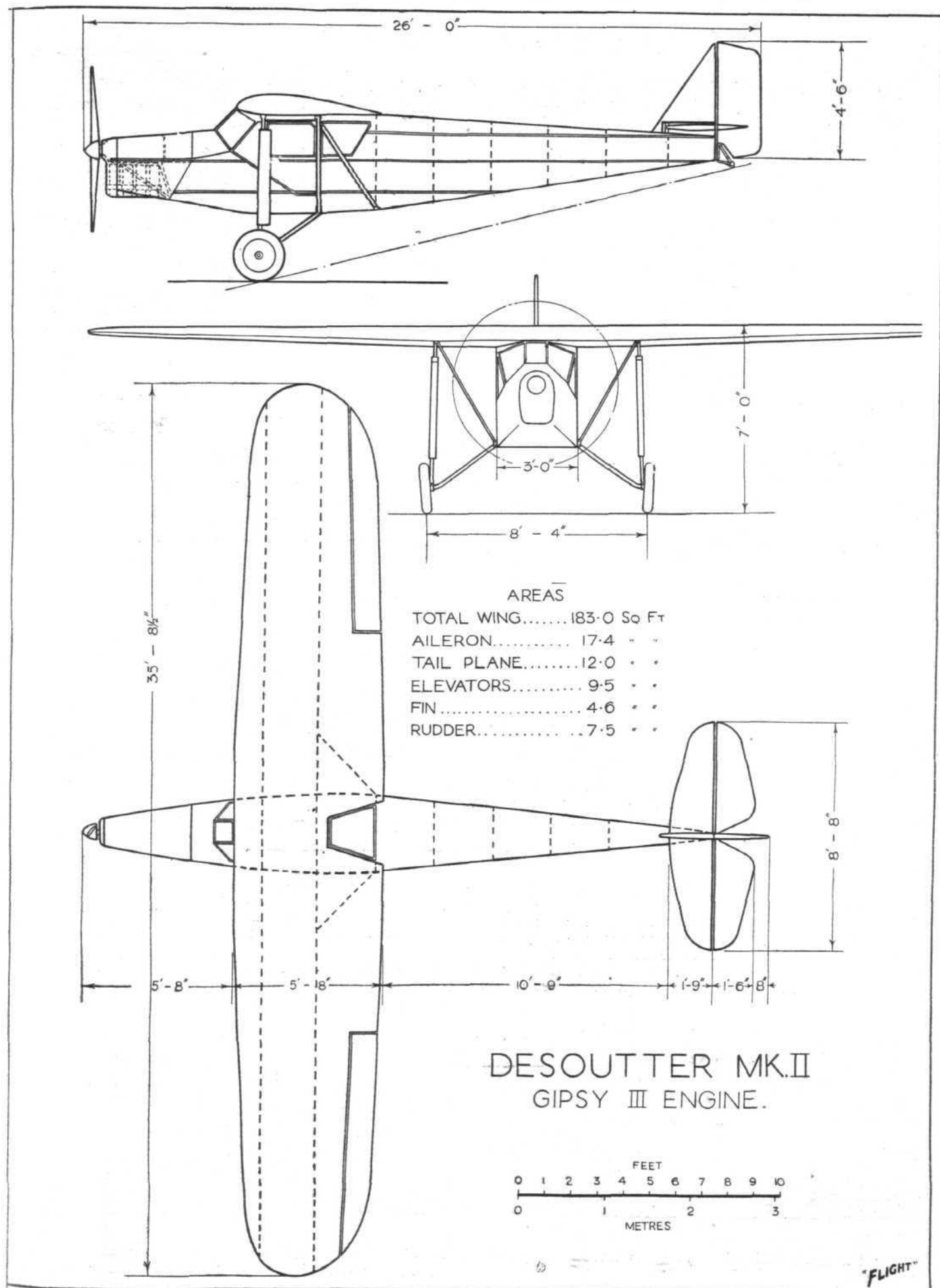
Another change in design which has improved the appearance of the machine is that to be found in the tail surfaces. The new tail is illustrated by a photograph, and it will be seen that it is of much better appearance than the old tail.

Altogether, the new Desoutter Mark II, is a very pretty machine, and one in which the private owner can legitimately take pride.

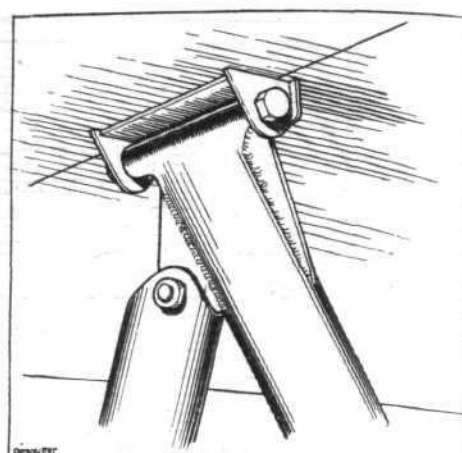
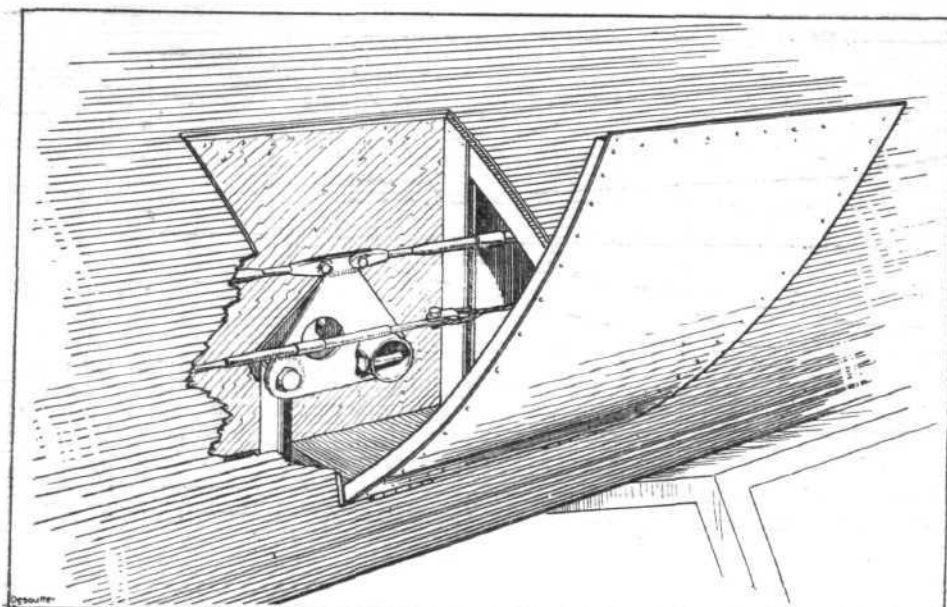
The new engine installation is very simple and neat. One of our sketches shows the engine mounting, which consists of a welded steel tube structure of extreme simplicity. The cowling over the engine is neat and can be removed in large panels so as to expose the engine installation. With the cowling removed, every part of the installation is readily accessible. The petrol tank, housed in the wing, has a capacity of 25 or 30 gallons, according to the wishes of the



THE NEW TAIL : The photograph above shows the tail of the Desoutter Mark II. Below is shown, on the left, the tail incidence adjustment, and, on the right, the bent crank which operates the elevator. (FLIGHT Sketches and Photo.)



THE DESOUTTER MARK II, MONOPLANE : General arrangement drawings. The power plant can be either a Gipsy III or an inverted Hermes.



The ailerons are operated from the joy stick by a vertical tube and a crank on the spar. The crank, and its inspection door, is shown on the left. On the right, details of lift strut attachment to spar. (FLIGHT Sketches.)

purchaser, and gives direct gravity feed to the engine. With the inverted type of engine a separate oil tank, of 1½ gallons capacity, is carried. The machine entered for the King's Cup Race was fitted with the de Havilland "Gipsy III" engine, but, in future machines the purchaser will have the option of fitting this engine or the new "Hermes" inverted engine. There will be a slight difference in cost between the

"feeder line" work to link up with main air lines, the Desoutter Mark II should find a large market not only at home but also in the Dominions.

The main dimensions and areas of the Desoutter Mark II are shown on the general arrangement drawings on p. 1013. The tare weight of the machine is 1,150 lb., and the gross weight for C. of A. is 1,900 lb. Thus, at full load, the wing

THE DESOUTTER MARK II: Side view. (FLIGHT Photo.)



two types, but this is not likely to be great, and in either case, the machine will be marketed at what must, in view of the great comfort of the cabin and generally high-class of workmanship, be regarded as a very reasonable figure.

The equipment supplied as standard includes airspeed indicator, revolutions indicator, cross level, petrol gauge, oil-pressure gauge, and compass. Two suitcases are fitted

loading is 10.4 lb./sq. ft., and the power loading 15.8 lb./h.p. The normal petrol and oil capacity, giving a range of about 450 miles, account for about 200 lb. of the disposable load. This leaves a useful load of 550 lb. Taking pilot and two passengers at an average weight of 160 lb. each, some 70 lb. is left for luggage, etc. Which means that a private owner can take with him two friends and enough luggage for a



THE DESOUTTER, MARK II:
Three-quarter rear view.
(FLIGHT Photo.)

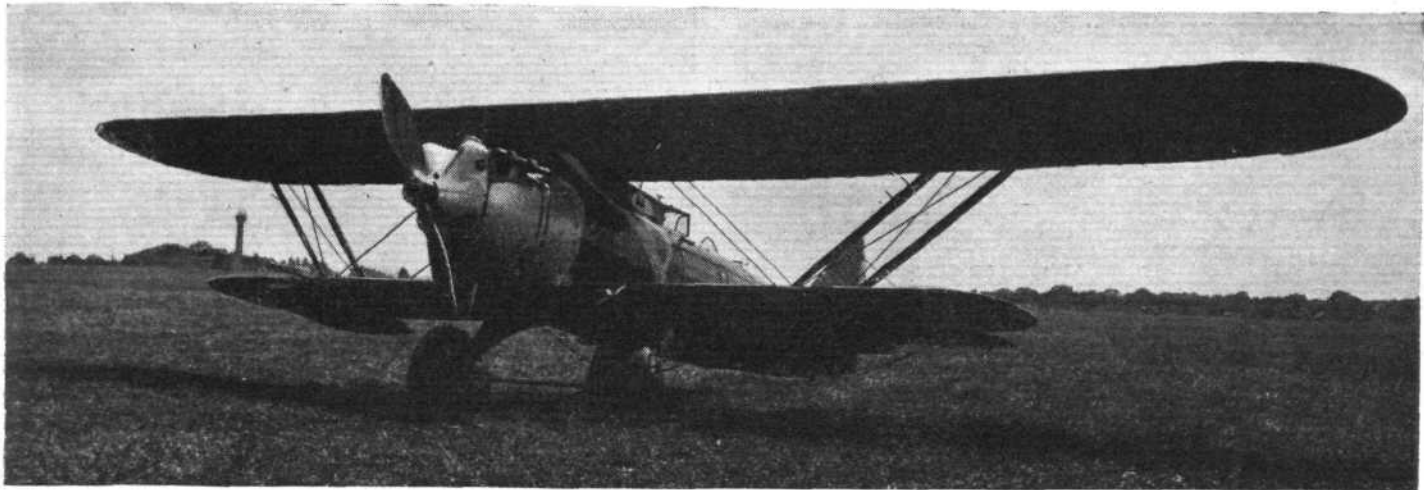
under the seat, and all three seats have thickly-padded cushions.

The standard Mark II will not be fitted with wheel brakes, but these will be supplied to anyone who desires them fitted at a small extra charge.

As a machine for the private owner who desires to fly in comfort and without the need for special flying clothes, or as an air taxi machine, or, alternatively, as a machine for

week-end cruise at least, while if the machine is used as a taxi, the pay load, for a range of 450 miles, is 390-400 lb., or some 3½ lb. per h.p. As the machine can cruise economically at 100 m.p.h., this must be regarded as a good figure, and a top speed of somewhere in the neighbourhood of 120 m.p.h. should be high enough to satisfy anyone who is not determined to use his machine for racing only.

Photographs of the cabin will be found on p. 1029.



The Breguet "Grand Raid" sesquiplan, "Question Mark," flown by Costes and Bellonte.

THE TRANSATLANTIC BREGUET "QUESTION MARK"

Some Notes on the "Long-Distance" Machine of Costes and Bellonte

WE have already recorded (in last week's issue) the fine flight from Paris to New York accomplished by Capt. Costes and Lieut. Bellonte, on September 1-2—when they covered the 3,700 miles from East to West in 37 hr. 17 min. flying time. Below we give some particulars regarding the machine used for this flight, the Breguet "Grand Raid" or "Long Distance" sesquiplan named *Question Mark*.

It was on this machine that Costes and Bellonte made the record non-stop flight from France to Manchuria a year ago, and also, we believe, their unsuccessful Atlantic attempt last year. It is a modification, specially for long-distance record flights of the well-known Breguet XIX, with which many famous flights have been accomplished during the past few years. Actually, the *Question Mark* is a further modification of the "Grand Raid" type, embodying several special features for the flights made by Costes and his companion.

This machine is entirely of metal (duralumin and steel) construction, with fabric covering. The form of the wings and of the tail surfaces differs somewhat, however, from the former Breguets, in the following particulars. The span of the upper wings is a little greater and the gap between the upper and lower wings has been increased, creating a "cabane" by raising the upper wing a little above the fuselage. Two pairs of steel struts, one pair mounted on each side of the fuselage, are used in this latest 'plane as braces between the upper and lower wings, instead of the two single "I" struts used in the previous machines.

The engine is a 650-h.p. Hispano-Suiza type 12 Nb. water-cooled V, fitted with Scintilla magnetos and incidentally it is gratifying to note that British K.L.G. plugs were used. It has

direct drive and is mounted in a neat framework housing with all its accessories, including those of the oil and water circulating systems.

The Wings

The profiles of the upper and lower wings are the same as those of the Breguet type XIX 'plane, of series construction, and the upper surfaces are rounded elliptically at the ends. The two upper wings are joined together by a centre section, having a width of 7 ft. 10 in. into which they are fitted.

The framework of the wing cellule comprises a central "cabane" supported by four stream-lined struts constructed of special steel and reinforced by two oblique rods and four vertical cables. The interplane bracing consists of the same system of guys and cables as that of the series type Breguet XIX.

The Fuselage

Elliptical in cross section, the fuselage is interesting in that the portion in the vicinity of the wing comprises the main fuel tank, which occupies the entire width of the fuselage, the sides of which are formed by the walls of the tank. Immediately behind this are the seats of the pilot and navigator, arranged in tandem.

Each cockpit is well protected by wind shields, and provided with a complete set of controls. The fittings comprise navigation instruments and other facilities suitable for a flight of 40 to 50 hours. The landing gear is composed of two Breguet-type wheels, with 1,000 by 225 mm. Dunlop tyres, mounted on a streamlined axle. Each wheel is covered by streamlined hood.

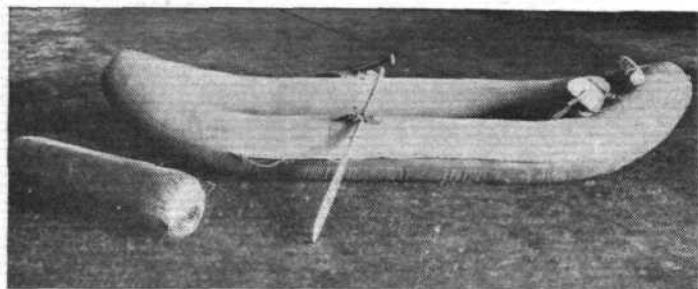
The Equipment

The equipment consists of the following :—A wireless set, for transmitting and receiving, operated by a

TRANSATLANTIC BREGUET " ? " 650 h.p. Hispano-Suiza 12 Nb Engine

Dimensions				metres	ft.	in.
Length o.a.	..	..	..	10.718	35	2
Wing span (upper)	..	..	..	18.300	60	0
Wing span (lower)	..	..	..	11.496	37	8
Height o.a.	..	..	..	4.080	13	4
Span of tail	..	..	..	4.934	16	2
Height of rudder	..	..	..	2.205	7	3
Wheel track	..	..	..	2.510	8	3
Areas				sq. m.	sq. ft.	
Upper wing	..	..	..	45.840	493	
Lower wing	..	..	..	16.100	173	
Total wing area	..	..	..	61.940	666	
Tail plane	..	..	..	2.860	30.8	
Elevator	..	..	..	5.160	55.5	
Fin	..	..	..	1.410	15.2	
Rudder	..	..	..	1.630	17.5	
Fuselage, max. cross-section	..	..	..	1.930	20.8	
Fuel and Oil				litres	gallons	
Main tank	..	..	..	3,710	816	
Upper wing tanks	..	..	..	1,460	321	
Lower wing tanks*	..	..	..	400	88	
Total fuel capacity	..	..	..	5,570	1,225	
Oil tank	..	..	..	220	48.5	
Weights				kg.	lb.	
Tare weight of machine	..	..	..	2,190	4,820	
Fuel and oil	..	..	..	4,260	9,375	
Disposable load	..	..	..	250	550	
Gross weight at start	..	..	..	6,700	14,745	
Loadings at Start						
Power loading	..	..	10.3 kg./CV	(22.7 lb./h.p.)		
Wing loading	..	..	108 kg./sq. m.	(22.17 lb./sq. ft.)		

* The tanks under lower wing were removed just before the start.



The collapsible lifeboat carried on the "Question Mark."

retractable generator installed in the side of the fuselage in the navigator's cockpit. The wireless fittings consist of: generator, sending key, S.F.R.A.-81 special transmitting and receiving set suitable for continuous and modulated waves (transmitting on 600-700 m. and 800-900 m. wave length; receiving on 450 to 1,550 m.); two 50-watt oscillating valves; etc.

On the right and left sides of the pilot's cockpit and within easy reach of the pilot, the provision lockers are installed. A tank of drinking water, which can be easily detached, is placed under his seat. In front of the pilot and on each side of him are the engine control levers, the petrol taps and the brake of the Gyroretractor.

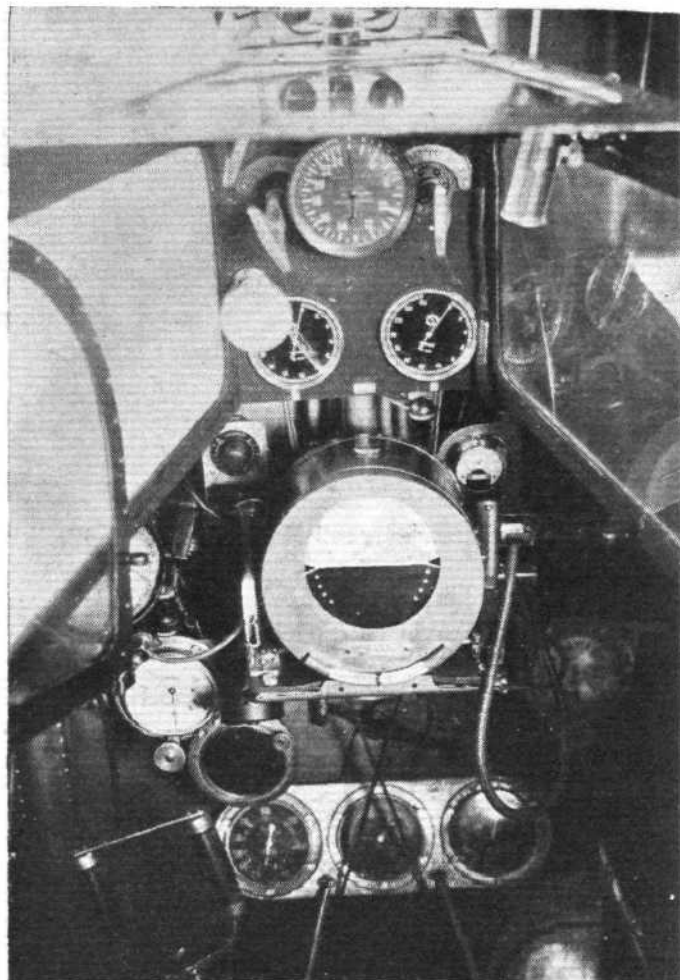
The instruments mounted in the pilot's cockpit are as follows:—

Thermometer to indicate the temperature of the carburettor at different altitudes (*i.e.*, when heated by exhaust gases); two thermometers to indicate the temperature of the mixture entering the carburettor; incline indicator (new model), Aera type; Gyroretractor with voltmeter; flight indicator; chronograph; anemometer speed indicator; oil level measuring gauge, type Spirobloc; fuel level measuring gauge for the forward tank, type Spirobloc; fuel level measuring gauge for the rear tank, type Spirobloc; two altimeters; one thermometer for the water temperature; one thermometer for the oil temperature; oil pressure indicator, Amiot type; fuel pressure indicator; Morel horizontal compass, with magnifying lens.

Mounted behind the windshield are an anemometer speed indicator operated by a wind-driven propeller (Wilhelm Morel type), two revolution counters, and a vertical Morel compass.

The fittings in the navigator's cockpit include an inclinometer, Morel compass, recording drift indicator, Alidade bearing indicator, sextant, etc.

Other equipment included a seat-pack type parachute for the pilot and a back-pack parachute for the navigator, while in addition there was provided a pneumatic life-boat, fitted with a pair of oars. This collapsible boat—made of rubber fabric—could be inflated very rapidly by means of a bellows



The pilot's cockpit of the "Question Mark."

and a bottle of compressed air, and was rolled up and placed in a locker within easy reach of the navigator. A life-buoy inflated in a similar manner, completed the life-saving gear.

Fuel Tanks

The fuel tanks are constructed of riveted sheet duralumin and are of the standard Breguet form and shape. They have a total capacity of 5,175 litres (1,150 gallons). The main fuel tank, which is installed in the fuselage, consists of two subsidiary tanks, one behind the other. One of these contains 2,990 litres of petrol of .720 specific gravity and the other, which has a capacity of 720 litres (160 gallons), carries a mixture of petrol-benzol having a specific gravity of .780.

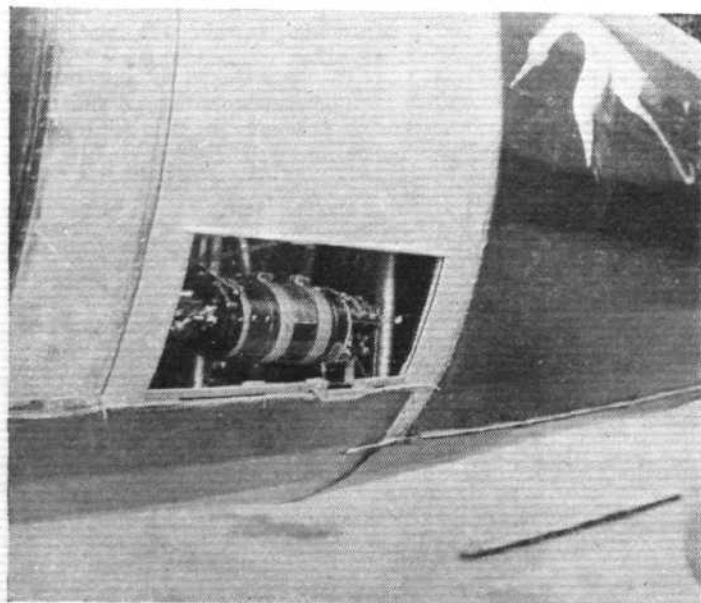
A sump, fitted with a "trap" serves both these reservoirs in common. Communication with the first reservoir can be cut off by closing a cock.

Other fuel tanks are installed in the upper wings. They comprise an auxiliary feed tank, of 110 litres (24 gallons) situated in the centre section between the wings, and three tanks situated in each of the upper wings (making six in all). Two of these wing reservoirs have a capacity of 195 litres (43 gallons) each, and the four others carry 240 litres (54 gallons) apiece. These reservoirs are installed between the longerons and their walls form ribs in the wings.

Two other tanks having the form of pontoons were mounted on the under side of the lower wings directly underneath each pair of struts. Each of these tanks had a capacity of 200 litres (44 gallons) and could be emptied by means of a hand pump worked by the navigator. At the last moment, however, before taking off from le Bourget, Costes decided that these additional tanks were not needed and they were removed.

The fuel pump of the motor draws from the sump installed in the large tank of the fuselage; the wing reservoir empties into this large tank. The Solex carburettors are fed directly by the auxiliary feed tank in the wings. The overflow of the auxiliary feed tank empties into the large fuselage tank.

The two reservoirs in the fuselage, comprising the main tank can be emptied instantly by means of two large valves which can then be closed again. The air intakes of the reservoirs in the wings are connected by a piping fitted with cocks and joined to the piping of the large tank. This is done so as to avoid all loss of petrol by siphonnage or evaporation



The retractable wireless generator, which was withdrawn into the fuselage when not in use.

A cock which closes all the piping connecting these air intakes, assures the absolute water-tightness of these tanks in case the plane is forced down on the water.

The lubricating oil circulation system comprises two reservoirs of a total capacity of 220 litres (49 gallons) and a radiator. The water circulation system comprises in addition to the retractable radiator and the usual auxiliary feed tank, a supplementary auxiliary feed tank of 15 litres (3½ gallons) capacity. This latter tank can be connected at will to the water pump, so as to compensate all losses occurring from evaporation during flight.

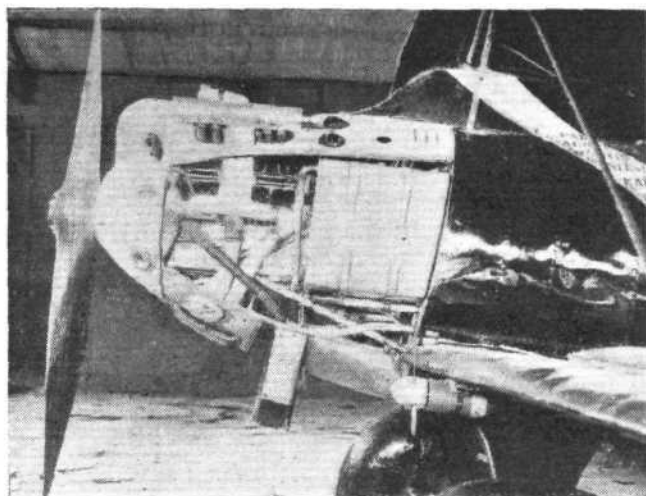
R. C. W.

America Welcomes Costes and Bellonte

CAPT. COSTES and Lieut. Bellonte have been given receptions in New York and other parts of the States in true American style; the Press has been lavish with its headlines, while large crowds have "mobbed" the airmen everywhere they went—and souvenir hunters have taken a large piece of fabric from the fuselage. On September 3 the French airmen attended a banquet given by the German-American Conference in honour of Herr von Gronau and his three companions (who reached New York on August 26 from Germany via Iceland, Greenland and Labrador, in a Dornier flying boat).

Early the following morning Costes and Bellonte took off from Curtiss Field on a non-stop flight to Dallas, Texas. They covered the 1,200 miles in 11 hr. 36 min. and thus won a prize of £5,000 offered by Col. William Easterwood for the first Paris-New York-Dallas flight. About 25,000 people saw them arrive at Dallas, where they were officially welcomed by the Governor of the State and other officials.

On September 7 the airmen arrived at Washington in the *Question Mark*, and were entertained at luncheon by President Hoover at the White House, where Admiral Byrd, Col. Lindbergh, Capt. Rickenbacker and Gen. Pershing were amongst those present.



The 650-h.p. Hispano-Suiza engine in the "Question Mark." The small petrol tanks under the wings, of 44 gals. each, were removed before starting on the Transatlantic flight.

Costes and Bellonte have received congratulatory messages from all quarters, including one from Lord Thomson, Secretary of State for Air. In recognition of their achievement, Costes has been promoted Commander of the Legion of Honour, and Bellonte an Officer of the same order. Besides these honours, the airmen, it is said, will gain approximately £400,000 in prizes and contract fees. It is reported that the *Question Mark* will make a "goodwill" flight round the United States, and will then be flown back to Paris by M. Codos and a mechanic.

CORRESPONDENCE

[The Editor does not hold himself responsible for opinions expressed by correspondents. The names and addresses of the writers, not necessarily for publication, must in all cases accompany letters intended for insertion in these columns.]

NOISE ON TERRA FIRMA AND IN THE BLUE

[2330]—Now and again a voice is raised against the possible annoyance in the future of overhead noise from aeroplanes. What ever time may bring in this direction—and I cannot help thinking complaints are greatly over-emphasised—would it not be a great national blessing if the present nerve-destroying uproar from traffic, etc., on *terra firma* were first seriously tackled (allowing air troubles to find their own salvation later) before the entire people become fit inmates for lunatic asylums.

A step in this direction might well be seriously considered in the direction of eliminating the motor driver who "drives on his horn." By entirely abolishing by law the use of the horn, not only would the peoples of this earth be relieved of a vast amount of injury to health but even greater still would be the enormous saving of life which would ensue, especially with the coming of "no speed-limit," as it would then be imperatively necessary for the motorist's personal "safety first" instinct, to drive cautiously at all times, and thus enforce his respect for other users of the King's Highway, whether they be fellow motorists, cyclists or even pedestrians. The writer has for years held the view that the curse of inconsiderate and bad driving is largely due in cases of accident to the fixed idea put forward that "I sounded my horn," is sufficient justification for whatever or whoever is within hearing, immediately to get out of it.

The curse of the horn has from long usage led bad, inconsiderate and thoughtless drivers to regard this raucous assault on the ears as a "mandate" (sanctioned and upheld by the law) for the instant elimination of every other user of the highway, to permit the free passage of each and every one of the individual horn-blowing motorists.

Forbid the use of the horn and speed and dangers of the road would quickly adjust themselves to the law-instinct in most human beings, of "self preservation." The exception could then more easily be dealt with. Warning by the horn was possibly excusable in the years gone by, when horse-less travelling was sufficiently novel to attract the attention of others—but that time has long since passed and the motorist should now be sharply reminded of his duties to his fellow citizens.

Of course the mechanical and exhaust racket emanating from the motor cyclist is such a self-asserting scandal at the present moment that if these road-pests do not soon put their own house in order voluntarily, they will probably find themselves, through public opinion, so restricted by legislation that we may have the pleasure of seeing the majority of the *beret*-wearing fraternity automatically eliminated.

"A reader of FLIGHT from Number One"
and a
"Nineteenth Century Motorist."

How Women Fly in U.S.A.

At the present time there are some 270 licensed women pilots in the U.S.A. Of these 24 are transport pilots, 32 limited commercial pilots, one is an industrial pilot, and the remaining 213 are private pilots.

Wapitis for the Hedjaz

FOUR Wapiti aeroplanes, with British pilots, left for Koweit via Baghdad, on the Persian Gulf, on September 9. They are to form the nucleus of an air force for the Hedjaz, and should enable Ibn Saud, King of the Hedjaz, to exercise better control over the frontier tribes and check their raiding tendencies.

An important tribal conference has opened, and the special British Commissioner has met representatives from the Hedjaz and Nejd. It is expected that many frontier matters will be discussed.

Graf Zeppelin Leaves for Moscow

THE *Graf Zeppelin* left Friedrichshafen for Moscow on September 9. There are 20 passengers, 16 of whom have booked return passages. Dr. Eckener, the designer, is in command. On account of bad weather conditions, no definite route has been chosen in advance. Weather reports from Moscow and Königsberg state that unfavourable conditions are likely to continue.

The Royal Aero Club of the United Kingdom

OFFICIAL NOTICES TO MEMBERS

ROYAL AERO CLUB OF THE UNITED KINGDOM Official Notices

The following Aviator's Certificates have been granted up to August 18, 1930 :—

9386	Thomas Elliot Laing	..	London Ae. C.
9387	Mrs. Helen Silver	..	Airwork Fl. School.
9388	Serge Lamarche	..	Hanworth Club (N.F.S.)
9389	Myee Maplesden Noakes	..	Cinque Ports Fl. C.
9390	Gavin Forsyth Anderson	..	Airwork Fl. School.
9391	Charles E. S. Lockett	..	Liverpool & Dist. Ae. C.
9392	Gordon W. R. Strickland	..	Bristol & Wessex Ae. C.
9393	Francis Victor Lysons	..	Hanworth Club (N.F.S.)
9394	Herbert Jeffree	..	Norfolk & Norwich Ae. C.
9395	Stanley Cecil Hawkins	..	Liverpool & Dist. Ae. C.
9396	Philip Ralph Clare	..	Hanworth Club (N.F.S.)
9397	Charles John Cooke	..	Northern Air Lines, Ltd.
9398	Babar Mirza	..	Phillips & Powis F. School.
9399	Robert Richardson	..	Nottingham Ae. C. (N.F.S.)
9400	Reginald Fairfoul Thomson	..	Nottingham Ae. C. (N.F.S.)
9401	Mervyn Joseph Noonan	..	Hanworth Club (N.F.S.)
9402	Edward Francis J. Adkins	..	Auxiliary Air Force.
9403	James Douglas More Gray	..	
9404	Masauji Hachisuka	..	Hanworth Club (N.F.S.)
9405	Mohamed Javad Namazie	..	Hanworth Club (N.F.S.)
9406	Reginald Evans	..	Airwork Fl. School.
9407	Edward H. S. Bridger	..	Hanworth Club (N.F.S.)
9408	Sq/Ldr. G. H. Martingell	..	Royal Air Force.

GLIDING CERTIFICATES.

The following Gliding Certificates of the Fédération Aéronautique Internationale have been issued by the Royal Aero Club :—

No.	Name.	Certificates.
1.	C. H. Lowe-Wylde (Kent Gliding Club)	.. A & B.
2.	C. H. Latimer-Needham (London Gliding A, B & C. Club).	

No.	Name.	Certificates.
3.	Marcus D. Manton (London Gliding Club)	.. A, B & C.
4.	M. L. McCulloch (London Gliding Club)	.. A. & B.
5.	Geoffrey M. Buxton (London Gliding Club)	A, B & C.
6.	F/O. Edward Lucas Mole (London Gliding A. Club).	
7.	Colin Aubrey Price (Portsmouth & Southsea A. Gliding Club).	
8.	Denys Max Thomson Morland (London Gliding Club).	
9.	Col. The Master of Sempill (London Gliding A, B & C. Club).	
10.	John Raymond Ashwell-Cooke (London A. Gliding Club).	
11.	Alan Goodfellow (Lancashire Aero Club)	.. A.
12.	Mrs. Dorothy Joan Bradbrooke (London A. Gliding Club.)	
13.	Thomas Graham Humby (London Gliding A & B. Club)	
14.	Leonard Charles Williams (London Gliding A. Club)	
15.	Harry Amein Abdallah (London Gliding Club)	E.
16.	Percy Michelson (Lancashire Aero Club)	.. A.
17.	Frederick Basil Tomkins (Lancashire Aero A. Club)	
18.	Eric Christopher Stanley Megaw (London A. Gliding Club)	
19.	Basil Alfred Gregory Meads (Lancashire Aero A. Club)	
20.	Robert Gidner Spencer (Driffield & District A. Gliding Club)	
21.	John Cecil Weale (Lancashire Aero Club)	.. A.
22.	Reginald George Robertson (London Gliding A. Club)	
23.	Thomas Eaton Lander (London Gliding Club)	A.

Offices : THE ROYAL AERO CLUB
3, CLIFFORD STREET, LONDON, W.1.
H. E. PERRIN, Secretary

CROYDON WEEKLY NOTES

CROYDON Aerodrome seems to have been attractive to Amphibians lately, and has been visited by the Amphibian Moth, Loening, Cutty Sark, and last but not least, on Wednesday, the 3rd inst., an unfamiliar drone in the skies attracted our attention to the good-looking Wright "Whirlwind" engined, Saro "Cloud," circling the aerodrome at a high rate of knots about 2,000 ft. up, showing off her remarkably clean lines. She landed perfectly, and taxiing to the Tarmac disgorged our old friends "All Weather" Mackintosh, Donald Drew, Alliot, and Scott—who was piloting—with other friends. We understand this machine has been purchased by Maj. Andrew Holt, of the Aircraft Investment Corporation.

Unluckily, a little later in the afternoon, a slight mishap occurred to the undercarriage when landing, which put an end to the proceedings for the day. The trouble was soon rectified, however, and on Saturday the "Cloud" proceeded to Leicester to give the "troops" there a treat, on the occasion of the opening of Mr. Lindsay Everard's new aerodrome at Ratcliffe. She returned to Croydon, and before landing put up a remarkable performance, which makes one again declare that our future in the air lies in huge flying boats, and amphibian types of aircraft.

With reference to the wonderful Paris-New York-Dallas flight of Capt. Costes and Bellonte, we at Croydon can claim some reflected glory, for both these "Braves" were well known here on the French London-Paris route some years ago. It is understood that Capt. Codos will go over to the States and fly the machine back past Paris as far as possible in order to beat the record for a long-distance flight. Here again we have one of the good old Air Union pilots, who may be called the pioneer of Paris-London night flying, for he carried out a great many experimental return night flights in 1926 in order to collect data for his company. Assuming the return journey to be successful, the "Question Mark" will be like a certain elderly Vickers "Vimy" now in the

Kensington Museum. Air Union pilots are in the lime-light just at present, and we have to congratulate Capt. Lauhle for his fine show in breaking the lightplane duration record at Le Bourget, on September 4-5, with a 40-h.p. Salmson-engined Albert aeroplane. He remained 28 hours in the air on a triangular course.

The Henderson Aviation Bureau, Ltd., is still going strong under the able guidance of Mrs. Henderson, Capt. Allen Charles, with Capt. Charles Allen as chief pilot—this is not a joke, but a curious coincidence in names. Charlie Allen has been extremely busy recently on special charter work both to the Continent and inland, and has done a great deal of joy riding also with Puss-Moths and Gipsy-Moths.

Mr. Hutchinson, late of Daimler Airways and Imperial Airways, has joined the firm as ground engineer, and this fact alone is a guarantee of the excellent way in which the firm's flying stock will be looked after.

The absence of K.L.M. machines makes a curious void in aerodrome life, and though we cannot speak officially, it is generally supposed that a settlement may be reached by government arbitration within a few days.

We all look forward to a re-union with our Dutch friends as soon as the settlement takes place. Had the K.L.M. been running, it is probable we should have had a record traffic week, for although they were not operating, as many as 1,454 passengers and 67 tons of goods were dealt with.

We have noticed that the Marconi Company's Bristol Fighter has been doing a lot of flying lately, and we have heard strange stories of wireless transmission of pictures from the air to ground stations, but when approached on the subject our experimental wireless wizards retreat craftily into their hut, smiling blandly and profess to know nothing.

Last week we mentioned a Desoutter destined for Poland as having a Hermes engine it has been pointed out to us that this should have been a Gipsy III.

M. L.



AIR TRANSPORT

CIVIL FLYING IN CANADA IN 1929

THERE is more than one feature of flying in Canada which is as excellent as it is unique. The Directorate of Civil Government Air Operations is, so far as we know, the only institution of its kind in the world. The time may come when every country of great size will copy Canada and set up something of the same description. Were Great Britain less minute than it is, we might well consider copying the example of the great Dominion. As things are, the R.A.F., in its spare time, can deal with the hurried journeys of the Prince of Wales and the present Prime Minister, as well as conveying Air Ministers and Under-Secretaries from time to time to Iraq and India. Survey, mineralogy, forestry, etc. are so well advanced in Great Britain, that there is no call for a Government air department to deal with them. But in Canada things are different, and the Directorate of Civil Government Air Operations is an extremely useful maid-of-all-work to practically all the other Government departments. It really is rather astonishing that the other large Dominions have not followed Canada's example in this. India, Australia, South Africa, New Zealand—they all have plenty of work for aircraft to do, and all of them do not boast sufficient flying companies to get the work carried out by contract. Where tenderers can be found, it is doubtless best to employ them; but one must remember the tendency of the bureaucratic mind to consider the granting of a contract an extravagance, whereas the use of an existing Government department is an obvious economy. Probably it was in no small measure due to the lead given by the Dominion Government that there is now more civil flying in Canada than in any other part of the British Empire.

The Canadian Report on Civil Aviation for 1929 has just been made available for the press, and while every chapter is full of interest and matter for amazement, the work of the C.G.A.O. Directorate is perhaps the most fascinating of all. Any Government Department can call upon this directorate for help, and during the year the following departments did so. The Interior received assistance in the shape of forest fire detection and suppression over 92 odd million acres of forest land in the three Prairie provinces (Manitoba, Saskatchewan, and Alberta), where the protection of natural resources is under the care of the Dominion Government, and also photography for the Surveys Bureau Topographical Surveys, the Water Power and Reclamation Service, and the Mines Branch. Agriculture required dusting of forests for the prevention of pests. Indian affairs had their treaty-paying parties flown to the centres where the Indian chiefs receive their money. The Post Office called for survey flights over proposed air mail routes. Mines asked for transportation and photography. Public works contented itself with requests for photography. Railways and canals had more exacting work for the aircraft, requiring reconnaissance in the Fort Churchill area on the east of Hudson Bay; while National Defence called upon Civil Government Air Operations for photography. The results of all air photography are pooled in a central office and are available for the use of all departments, thus saving much duplication of effort. One photograph, or set of photographs, taken at the request of one department, is often found to give information to one or more other departments. As the report says, a photograph taken during the investigation of the water power possibilities of a river, may be invaluable in map revision. It may at the same time show clearly the nature of the forest cover and therefore be of value to the forest services; or it may be that the geological features in the picture may be of the greatest interest to the Department of Mines.

The C.G.A.O. Directorate has at its disposal air stations at Ottawa, Vancouver, High River (Alberta), Winnipeg, Dartmouth (Nova Scotia), as well as eight self-contained photographic detachments working in various parts of the country. The station at Ottawa is for experimental work, and there also are the H.Q. of the directorate, the stores depot, and the photographic central office. The High River Station, which is usually closed down for the winter, operated

during the summer with six Moth landplanes. The Winnipeg station, which has eight seaplane stations on different lakes, had an establishment of 37 aircraft, of which all except nine were of British design and construction, either Home or Canadian. The other nine were of American design. The Vancouver and Dartmouth stations were less active.

For the preservation of natural resources, by means of aircraft, there are three systems at work in Canada. The Dominion is divided for this purpose into three tracts, namely the three Prairie Provinces (Manitoba, Saskatchewan, and Alberta), the two large oceanic provinces of Quebec and British Columbia, and thirdly the very advanced Province of Ontario. The Dominion Government itself controls the natural resources of the Prairie Provinces, and in them the flying services are carried out by the machines and personnel of the Royal Canadian Air Force, acting in the capacity of a civil department of the Government. It seems to be a mere matter of convenience that it is the R.C.A.F. which is used for this work. In former years the work was done by civilian pilots employed by the Government, and in due course there may perhaps be a reversion to this plan. In British Columbia and Quebec Provinces the flying has been done by commercial firms under contracts from the provincial authorities. If we remember right, in previous times the R.C.A.F. carried out this work and the two Provinces paid the Dominion for its services. Now civilian contractors undertake the work, which is an example of how in Canada the R.C.A.F. constantly creates work for commercial firms and hands it over to them as soon as they are able to undertake it. In Ontario a totally different system prevails. There the Provincial Government maintains its own air service as a branch of the Department of Lands and Forests. This, of course, is a civil service.

In addition to the official services, various commercial concerns, notably lumber companies, constantly use aircraft for survey and transportation. Usually they make a contract with an established operating firm, but occasionally they own their own aircraft and employ their own pilots.

This general flying work, official and private, is still the most important branch of air work in Canada. Regular mail services are a more recent development, and Canada seems to be still feeling her way cautiously toward a definite programme in this matter. The goal set before all eyes is a through air service from the Atlantic to the Pacific. Steps have already been taken in this direction, in particular the service from Winnipeg to Calgary and Edmonton, where night flying is being developed, and which is run in connection with the train services. Ultimately we may expect Vancouver to be connected by air directly with either Croydon or Cardington or both, according as the projects of an aeroplane service across Greenland and the airship experiments develop.

Mail services in Canada are very much affected by the weather of the different seasons, as well as by the varying climatic and geographical conditions of the different Provinces in that huge Dominion. Some services are only required in winter, during the period of closed navigation, when the water ways are frozen, and aeroplanes on skis are the only way of maintaining, not fast communications, but any communications at all which are faster than the dog team. Other services are only required in summer when navigation is open, and aeroplanes can meet steamers and hurry the mail which they have brought to the main centres of population. Other services must fly all the year round, and they meet with difficulties in the spring and the fall, when the land is either half frozen or half thawed, and wheels, floats, and skis are all equally handicapped. Fog is met with near both oceans, in Quebec and British Columbia, whereas the central provinces are clear of this most embarrassing phenomenon. From the Atlantic to the system of lakes round Winnipeg, flying boats are the best type of aeroplane to use. Across the rest of the prairies and the Rockies, landplanes must be used. Before the great trans-Canada airway can be established, large sums will have to be spent in providing aerodromes which can be used all the year round.

It is a big problem, and not one to be rushed. Canadians are the last people in the world to rush such a project. Their policy has always been to use aircraft to the full where its advantage has been clear and undoubted, but to feel their way cautiously towards further steps ahead. This policy has been amply justified by results, and entitles us to regard Canada as one of the greatest flying countries of the future.

Quite apart from the east-west airways, which tend towards the final accomplishment of the Atlantic-Pacific airway, there are the mail contracts for services which run in a south-north direction. Some of these serve mining districts. Their routes and schedules are varied from time to time as occasion requires. One service, however, is of outstanding magnitude, namely, that which flies from Fort McMurray in northern Alberta to Aklavik on the Arctic ocean on the northern shore of Yukon. This service operates all the year round, but definite schedules of flights are not attempted. Suitable weather is awaited before a flight is started. The route is some 1,500 odd miles, and in winter it takes four days to cover it, as it has been found that only about 2½ hours' flying a day is possible in the far north. The contracting company is Commercial Airways of Edmonton, Ltd., whose headquarters are at Edmonton, Alberta. Fort McMurray, the starting point, is on the Athabasca river, and the route follows this river up to Lake Athabasca, then it follows the Slave

river up to the Great Slave Lake; and then the Mackenzie river up to Aklavik on Mackenzie Bay in the Arctic Ocean. The first trip was made on December 10, 1929, when 5 tons of mail were taken up to the north. The company started with a fleet of four aircraft, and employed five pilots and six engineers. The benefit to the settlers and trappers in the far north would be difficult to describe. Previously it was a very rare event indeed for them to receive a mail. A river boat used to arrive at Aklavik twice a year. Other stores were brought up by dog teams, and there must often have been a shortage. The report mentions one case of one settlement stricken with diphtheria at a time when all the roads were blocked with snow. The aeroplanes of Commercial Airways came to the rescue, and a supply of serum and other medical necessities was flown up from Edmonton. The pilots on this service must live a life of great hardship and must be uncommonly fine fellows. It is gratifying to learn that the Trans-Canada Trophy for 1929 was awarded to one of the pilots of Commercial Airways, namely Capt. W. R. May, D.F.C.

It will be remembered that W. R. May, when on his first flight over the lines in 1918 was engaged by Baron von Richthofen, and perhaps would not have escaped with his life had not his flight commander, Capt. Roy Brown, another Canadian, come to the rescue and killed von Richthofen.

AIRSHIPS AND THE BRITISH ASSOCIATION

ON Monday, September 8, the British Association, which was holding its session at Bristol, listened to addresses on airships by Lieut.-Col. V. C. Richmond, Herr Direktor W. E. Doerr, and Mr. B. N. Wallis.

Col. Richmond spoke generally on the development of rigid airship construction. Starting with a reference to the future use of airships in war, he did not contemplate their total destruction by incendiary bullets. The airship would rely for its defence on being non-inflammable, on carrying aeroplanes and guns, and keeping out of the range of hostile aeroplane bases. He then stated the needs of commercial airships, which, he said, were the provision of adequate safety and comfort for the passengers, the capacity to run perpetually to scheduled time over long distances, with a margin of fuel to meet adverse weather, and the possibility of being handled at their terminal bases. A high ceiling was not necessary. He hoped that helium would ultimately be adopted for inflation, but the risk connected with hydrogen had been proved to be extraordinarily small. The use of petrol fuel, though implying only a justifiable risk in a warlike airship, was not to be contemplated for a commercial airship flying in the Tropics. An immediate practical necessity, he said, was to test various airship shapes under turbulent conditions, so as to discover whether current ideas on their respective merits were correct.

Turning to the question of covers, Col. Richmond said that the advantage of a metal cover, if any, must lie in the permanence of its physical and chemical characteristics. Corrosion of a thin metal sheeting might well prove more serious than the weathering and ageing of doped fabrics. Turning to passenger accommodation, he said that the standard of comfort should be judged in relation to the length of the journey, namely, two and a half to three days. He prophesied that future accommodation would be partly in the hull and partly in cars or bulges fixed underneath the hull. An increase of size to twice that of the present ships, or even more, might easily come within the lifetime of the present generation. The limit in size might come from considerations of handling, but with the use of mechanical methods there was no reason to think that ships 1,000 ft.

long and 200 ft. in girth could not be dealt with. It might, however, prove more economic to use a larger number of comparatively small airships, so as to get frequency of service, rather than a smaller number of large ships.

He did not think that a speed of more than 90 m.p.h. would be demanded, and even this might be unnecessarily high. Further operational experience on this point was desirable. An airship inflated with helium and driven by heavy-oil engines should, he thought, become the safest form of transport yet devised.

Herr Doerr, of the design staff of the "Graf Zeppelin," devoted his paper mainly to the advantages of gas fuel over liquid fuel. When liquid fuel was used, the airship got lighter as it was consumed. This had to be compensated by valving gas, which was wasteful even in the case of hydrogen, but was worse in the case of the precious helium. With a gas fuel of about the same weight as air, as the fuel was consumed air could be taken in, and the trim of the ship was not affected. He said that on the "Graf Zeppelin" it had been found that more heat units could be obtained from gas fuel than from a corresponding volume of liquid fuel. Moreover, with gas fuel, the carburettor only needed to be set once.

Mr. B. N. Wallis, the designer of R 100, described the construction of that airship, pointing out a number of experimental features. A great deal had been heard about the outer cover on the flight across the Atlantic; but, while mistakes had been made, he felt that on the whole the cover had behaved in a very creditable manner, and he thought that the experiment should be carried on in order to avoid the excessive weight which the adoption of any other system would involve. On R 100 each passenger was allotted 1,000 cub. ft. of air space, as compared with 70 cub. ft. in a first-class railway carriage and 40 cub. ft. on the principal liners running from this country. The R 100 had provided accommodation for 100 passengers, whereas the "Graf Zeppelin" had only accommodation for 20. On the same ratio as the "Graf Zeppelin" the British ships would only provide for about 30. This accounted to a certain extent for the reduced range of the British airships as compared with the "Graf Zeppelin."

R.101's Flight to India

It has been provisionally decided that R.101 shall leave England on her flight to India some time between September 24 and October 4. Lieut.-Comdr. W. H. Watt, of the Royal Airship Works, Cardington, has already arrived at Karachi, where preparations for R.101's arrival are well advanced.

Northern Air Lines' Increased Traffic

NORTHERN AIR LINES, LTD., report an encouraging increase of air traffic since the establishment a few months ago of regular air services to and from the Corporation Aerodrome at Chat Moss, Manchester. In one month there were over

400 landings and departures, and 158 of these were by machines not belonging to Northern Air Lines. The company has decided to increase its fleet of aeroplanes from 16 to 28, and a control tower is to be erected at the aerodrome with a special wireless apparatus to facilitate the landing of aeroplanes which arrive in foggy weather. It is announced that the services of Imperial Airways, Ltd., which use the Manchester airport, will shortly be extended to Edinburgh. Northern Air Lines, Ltd., report a satisfactory increase of the private hire of aeroplanes by business men for special business journeys, and there is also developing a demand for aircraft to carry business men between Manchester and their country houses.

PRIVATE FLYING AND CLUB NEWS

RATCLIFFE

THE opening of Mr. Lindsay Everard's private aerodrome at Ratcliffe-on-the-Wreak, was duly performed last Saturday, September 6. Baptism would be a far more appropriate description of the ceremony, that is, assuming that total immersion forms part of the requirements in the case of an aerodrome.

It was rather tragic, for the day started well and the number of visiting machines was absolutely unprecedented, but after lunch, when the real programme was about to commence, the rain started, and continued at intervals until Sunday afternoon.

A few words about Mr. Lindsay Everard must form a prelude for the meeting, as he is rapidly becoming one of the outstanding benefactors to private and club flying. Mr. Everard is the M.P. for the Melton Division of Leicestershire and the President of the Leicestershire Aero Club, besides which he is a very wealthy man connected with the production of that ancient and truly British beverage, beer.

When the Leicestershire Club was formed and Mr. Everard became president, even the original organisers can have had little idea of the impetus which this connection would give the club, and of the benefits it would bring them. Mr. Everard at once started by purchasing machines of his own and engaging his own pilot, and he now owns two Moths and a Puss-Moth; furthermore, he lends his machines to the club as and when wanted. In the matter of entertainment of guests at air meetings, and indeed of help in any direction, whatsoever, Mr. Everard has always been to the fore. Not content, however, with running his own machines, he has now had his own aerodrome built at Ratcliffe, near his home, and also lends that to the club when Desford becomes crowded.

Ratcliffe aerodrome, although a trifle narrow, is an excellent



Sir Sefton Brancker, on the right, supported by Mr. Lindsay Everard on the left, opens the aerodrome. (FLIGHT Photo.)

AERODROME

aerodrome, as indeed everyone who knows anything about aerodromes would expect it to be, since it was prepared by that expert, Mr. Hunter, of Chester. We gather that the difficulties to be contended with were, in this case considerable, and that even as late as last January, very little had been done, which only shows what Mr. Hunter can do in this line, for the surface to-day is a model which might well be copied by all others building aerodromes.

The meeting, taken as a whole, was a most excellent party, and the hospitality of the club quite beyond comment; as regards the organisation of the races, we certainly heard a good deal of complaining from the pilots, and in the Grosvenor Cup, in particular, it seemed as if the arrangements lacked that attention to detail which characterised all other arrangements made by the club. A turning point was, in at least one case, at a different spot to that marked on the map,

which was prepared for each pilot, while the general opinion seemed to be that they were all insufficiently visible from the air, especially as the weather was bumpy, and some of the heats were flown in rain storms. No explanation was given as to why that particular course was chosen for the Grosvenor Cup Race, and one must assume that there was some very good reason, but a course around the valley on the north side of the aerodrome would have allowed the competitors to be in view for most of the race, and it would be interesting to know why this was not chosen.

The Grosvenor Cup is the Private Owners' race of the year, and ranks second only to the King's Cup Race, and it was difficult to see any justification for relegating it to the day following the main meeting, when there was practically no public to witness it, and for putting the S.B.A.C. Cup Race



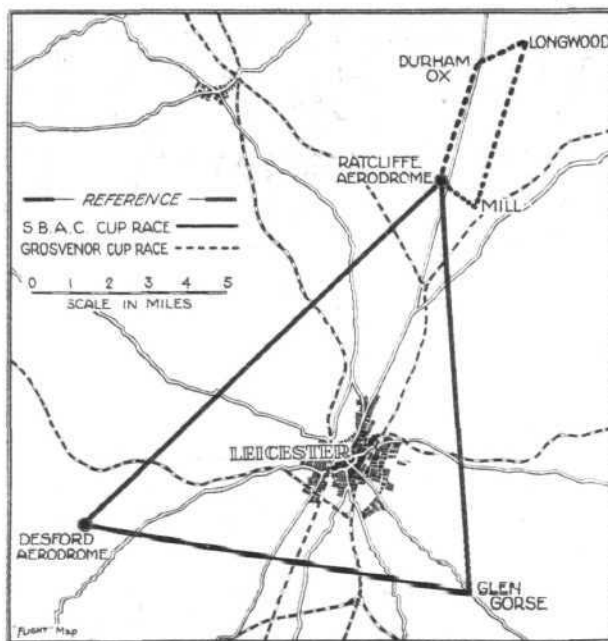
Miss Vivien Spooner, Miss Winifred Spooner, Sir Sefton Brancker, Miss Amy Johnson, Flt.-Lt. S. D. Scott and Mr. John Lord, all evidently satisfied after their flight in the Saro Cloud (2 Whirlwinds J6-nine) (FLIGHT Photo.)

into the Saturday's programme, thereby giving this latter more prominence in the eyes of the general public, it would surely have been better to have run off all the heats on Saturday, and to have had the finals of both races, and the main programme on Sunday. However, there is no doubt that the club had a real job on in organising a meeting at which over 100 visiting machines turned up, and if their arrangements for the races did allow a little criticism, the way in which they looked after the welfare of the visitors certainly did not, with the result that no one could say he, or she, did not spend a very enjoyable week-end.

As already mentioned, the programme was somewhat disorganised on account of the weather, but Mr. Jeffs, as usual, soon improvised what best fitted the circumstances, and provided an excellent afternoon's entertainment. There was a Rally or Arrival Competition for the first pilot to arrive after 12.15 p.m. About that time the air was thick with machines and reminiscent of the Brighton Road on any Sunday. The winner of the first prize was Mr. S. A. Thorn of Cirrus Aero Engines, who came up in an Avian (Hermes) with Mr. Holman their sales manager, the second was Flt. Lt. A. Scroggs in his D.H.53. The pilots of both machines received extremely nice tankards. A third prize was given to Mr. A. Jackaman, who arrived in his Puss-Moth direct from Liège, except for the compulsory stop to clear customs at Lympe. It would be impossible here to give a full list of all those who arrived by air, but they included pretty well everyone we can think of who ever goes to flying meetings.

An example of good service was shown by Miss Slade, the Secretary of Airwork, Ltd., who on her arrival noted that the Klemm, belonging to Lord Willoughby de Broke, was lying

A panorama showing some of the visiting machines. Another row of machines was out of the photo on the left. (FLIGHT Photo.)



Map showing the course for the Grosvenor Cup and S.B.A.C. Races

with one wing up as if the undercarriage was broken. Immediately she landed she left her machine and within a very few minutes was back making arrangements for dismantling the Klemm, having secured the contract to repair it.

About this time Mr. Buckingham arrived with a D.H. demonstration Puss-Moth, carrying Miss Amy Johnson and Sir Sefton Brancker, which was a signal for a general move for lunch. During this function such pilots as Mr. S. Thorn, Lt. R. Bentley and Flt. Lt. Rose gave displays of aerobatics before a crowd which already numbered some thousands. Miss Johnson was only at Ratcliffe on the understanding that she took no public part, and Sir Sefton Brancker had therefore agreed to open the meeting, which he did shortly after lunch.

The suggestion made in FLIGHT that Mr. E. C. Brown was the man whom executives of these meetings should secure for their announcer was followed up, and we saw him installed in this

office at Ratcliffe; his ability is undoubted, and no higher compliment could have been paid to his handling of this duty under difficult circumstances than the remark which the Marconi representative made after the meeting, when he came up and said "Well, sir, that's the first time I've heard a sensible commentary on a flying meeting!"

Just before the opening, the race for the S.B.A.C. Cup was run off. This is set out in detail in a subsequent table. The course was 33 miles and the race was won by Mr. O. Tapper on a London Club Moth (Gipsy I).

Thereafter followed a display by a flight from No. 43 (Fighter) Squadron from Tangmere. They were, of course, flying Siskins (Jaguars), and were under the supervision of Wing-Commander Stent. We feel most diffident in commenting upon this display because we know that no words can do justice to the marvellous exhibition which was put up. Nothing ever seen at any display in this country has ever approached it, that is in the matter of formation aerobatics, and the people of Leicester would do well to realise



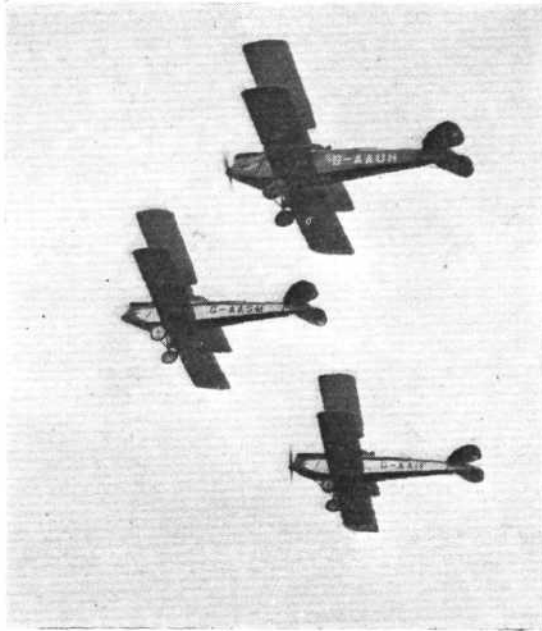
just how extremely lucky they were to have this flight there.

At the start the flight took-off in formation, each machine joined to the next with tape on which was strung small flags. They then flew round, climbing to about 2,000 ft., in V-formation, after which they dived and looped still tied together. This was followed by a loop in formation in line abreast, again still tied together, which manœuvre is believed not to have been done before at a public display. A return to the V-formation was followed by the Prince of Wales Feathers, which broke the tapes. Line astern or snake was then adopted and a loop done in this formation, a very difficult manœuvre owing to the last two machines having to cross the slipstream of the preceding machines. An even more difficult stunt was next carried out when the flight looped in line astern and half-rolled off the top. All this was done with perfect station keeping, and only on one occasion did the last man (an unenviable position!) waver slightly. Throughout the display the precision and accuracy was marvellous, and the three machines of the formation, whether tied together or not, behaved as one machine.

After a fly past of the many different types of machines present, far too many to name individually, there was a return of the comic episode which was so ably carried out at Norwich by "Our genial bottle-neck," in this case Air Vice-Marshal O'Kantmys, wielding a sporting gun with devastating effect on an array of clay pigeons.

A further display by No. 43 Squadron was the next item, and two machines of the flight gave an exhibition which further enhanced the prestige which they had already gained as a complete flight.

Mr. "A," who wishes to preserve his anonymity, but who is well known as a member of the Household Brigade Flying Club then fell for 8 secs. from a Moth before opening his Russell parachute and making an exceedingly well judged jump into the aerodrome; for an amateur to make a delayed drop of such length was a particularly creditable performance though the justification of using a parachute as means to



The Leicestershire Club in formation.
(FLIGHT Photo.)

thrill the public is very much open to question.

The proverbial set piece wound up the display when sundry pseudo missionaries escaped the clutches of pseudo pirates who were in turn bombed with pseudo bombs, the accuracy of which ignited the providentially (in spite of the rain) inflammable buildings.

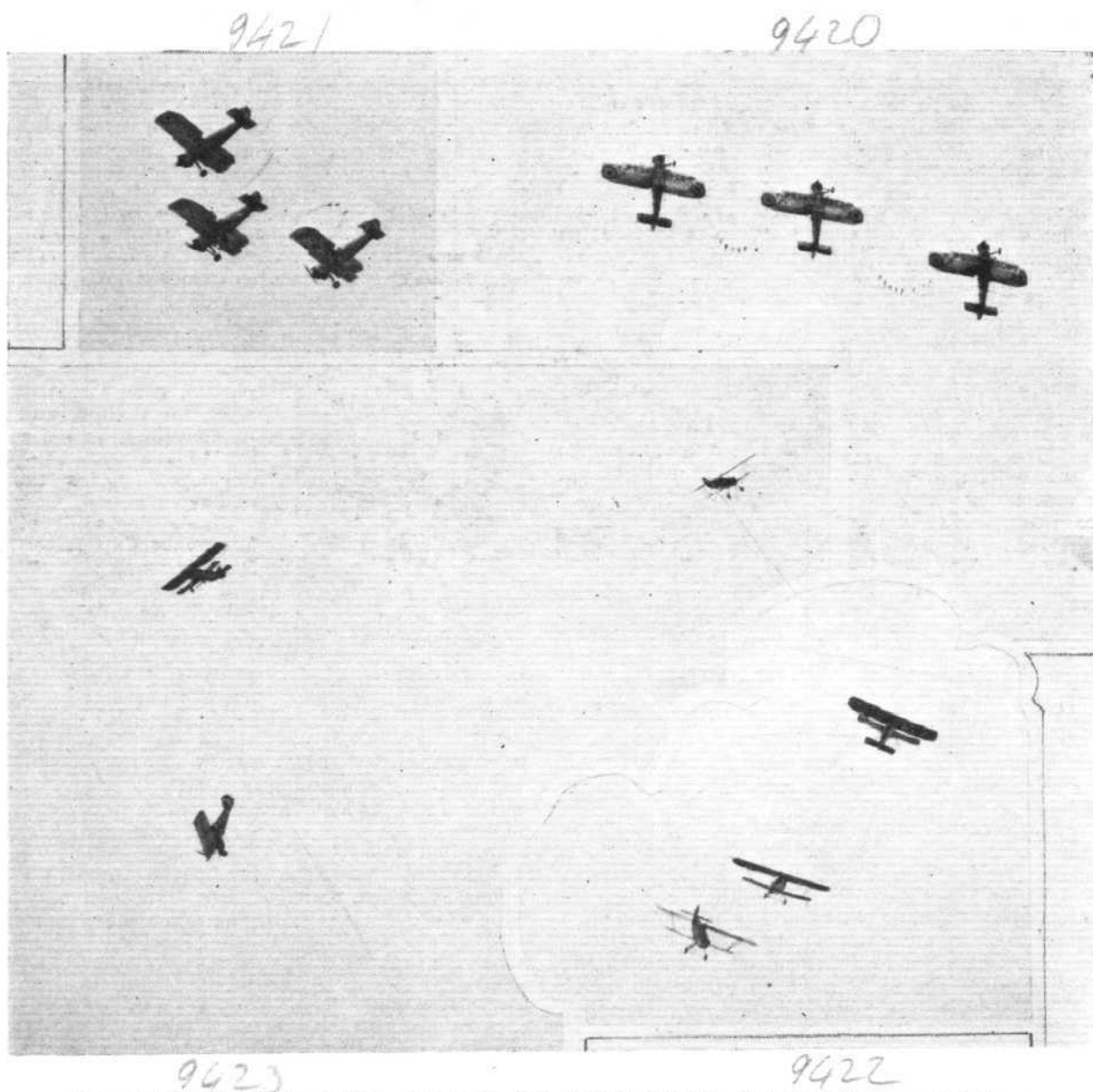
During the evening the Club held a most enjoyable dinner and dance for all the visitors which was followed by sundry small parties, some for further dancing, some for talking, and some even for consuming jellied eels, according to the taste the participants developed during the afternoon and evening!

Sunday was devoted to the Grosvenor Cup Race. The heats for this started at about 11 a.m. and the full results are tabulated below. As will be seen this time it was a triumph for Cirrus-engined machines and as the Hermes was third and fourth it quite looks as if that engine has entirely eradicated any troubles which beset it last year. During the King's Cup

Race we heard that this was so and the results of that race and this one would appear to prove it. The machine which won was not the same machine which won last year but was another of the same vintage and from the same club, while the second was also from Cramlington though not from the club, as it belongs to the Cramlington Aircraft Co. The third belongs to Capt. Percival, who had such bad luck in the King's Cup, and it is gratifying to see a newcomer holding his own against the well-established machines. Capt. Percival is a man who has the courage of his convictions, and it is understood that he will be getting his Hendy 302 into production before very long. There would seem to be a big future for this type of machine, and being a man of original ideas, it is possible that he will take a "chrysanthemum" as the badge for his company; both he and Flt.-Lt. Snaith, on the Comper Swift, put up excellent aerobatic shows during interludes in the meeting, showing that general utility machines are by no means the flimsy things they are sometimes looked upon as being, in other countries.

Sunday afternoon, when the race had finished, saw a general





No. 43 (Fighter) Squadron, above in the "tied-together" formation, and below doing the Prince of Wales' Feathers and looping in line astern. (FLIGHT Photo.)

exodus of the visitors, many of whom being bound southwards, stopped at Sywell and partook of the delightful tea which is always to be had at that hospitable aerodrome.

With reference to the lists of entries we published last week, we are asked to say that the Desoutter G-AAVO in the Grosvenor Cup was entered by Phillips and Powis of Reading and not by the Desoutter Company, as was stated.

The Air League Challenge Cup Race, which was also to have been run off at this meeting, was abandoned owing to the weather and the fact that many pilots had to leave Ratcliffe shortly after the Grosvenor Cup Race.

THE GROSVENOR CUP HEATS.

Heat 1.			Heat 2.		
		m.p.h.			m.p.h.
1.	G-AAWW	92½	1.	G-EBQV	94½
2.	G-AAHJ	102	2.	G-AAYE	122
3.	G-EBRQ	95½	3.	G-AAEX	97
Heat 3.			Heat 4.		
		m.p.h.			m.p.h.
1.	G-AAXH	110	1.	G-AAVT	127
2.	G-AADA	104	2.	G-AACC	106½
3.	G-AAYZ	116½	3.	G-AAXM	120½

HJ was an Avian (Hermes), pilot, Mr. F. Thorn; RQ was a Widgeon (Genet II), pilot, "J. Wellworth"; YE, a Puss Moth (Gipsy III), pilot, A. Jackaman; EX, a Moth (Gipsy I), pilot, H. Travers; YZ, a Martlet (Gipsy II), pilot, Miss W. Spooner; XM, a Puss Moth (Gipsy III), pilot, Flt.-Lt. S. David.

LONDON Aeroplane Club.—On Sunday last a large number of members of the club assembled at Stag Lane at a supper given to Mr. F. R. Matthews, who was that day relinquishing his post of pilot-instructor to the club.

With Will Hay in the chair everything went with a "bang," and "Mat," who was presented with a silver cigarette box, was deluged with good wishes in his new sphere of activity.

Miss Amy Johnson, who came through specially from Leicester to attend, was notified of her election as hon. life member of the club and presented with a gold membership badge.

The club has engaged the services of Mr. A. G. Store to fill the vacancy of second pilot-instructor.

THE FAR-EAST AVIATION CO. is extending its sphere of action in China, and Mr. Vaughan Fowler, the managing director, is shortly leaving Hong-Kong for Shanghai. China is a country with considerable aviation possibilities, and already Avians and Moths are becoming common, while quite a number of Puma-engined D.H.9's are being sent there by the A.D.C. Co. from Croydon. Mr. Vaughan Fowler was a leading spirit in the formation of the Hong-Kong Flying Club, which has proved a very live institution. Incidentally, the Co. was incorporated as a Limited Co. on August 14.

THE GROSVENOR CUP RACE.

Place	Machine	Entrant	Pilot	Start min. sec.	Finish min. sec.	Speed m.p.h.
1.	G-EBQV Moth (Cirrus II)	Newcastle Ae. C.	L. Turnbull	0 27	20 22	95
2.	G-AAWW Klemm 3-str. (Cirrus III)	W. Runciman	Entrant	0 00	20 29	92½
3.	G-AAVT Hendy 302 (Hermes)	Capt. E. Percival	Entrant	5 54	20 57	125½
4.	G-AAXH Sports Avian (Hermes)	B. S. Allen	Flt.-Lt. G. Stainforth	4 15	21 08	111½
5.	G-AADA Moth (Gipsy I)	J. D. Irving	Entrant	3 31	21 29	105½
6.	G-AACC Bluebird IV (Hermes)	Flt.-Lt. T. Rose	Entrant	3 40	21 32	105½



In the centre is Mr. Turnbull, the winner of the Grosvenor Cup, with Mr. Runciman (second) on his right and Capt. Percival (third) on his left. (FLIGHT Photo.)

THE S.B.A.C. CHALLENGE CUP RACE.

Place.	Machine.	Entrant.	Pilot.	Start min. sec.	Finish min. sec.	Speed m.p.h.
1.	G-AAEX Moth (Gipsy I)	London Ae. C.	O. Tapper	1 03	21 32	99½
2.	G-AASM Moth (Gipsy I)	Leicestershire Ae. C. ..	A. Baxter	1 03	21 51	98
3.	G-EBQV Moth (Cirrus II)	Newcastle Ae. C.	L. Turnbull	0 00	22 59	83½
4.	G-AAIF Moth (Gipsy I)	Leicestershire Ae. C. ..	H. Lavender	1 03	23 01	92½

SURREY Aero Club.—The opening meeting of this club at Gatwick Aerodrome has now been altered from Saturday, September 27, to Saturday, October 4. An ambitious programme of events is being arranged and it is hoped that many private owners will attend.

PHILLIPS AND POWIS Aircraft, of Reading, have just passed out their first lady pupil for her "A" licence. She is Miss P. Gower, the daughter of Sir Robert Gower, O.B.E., D.C.L., M.P., and intends to become a private owner shortly.

THE BRISTOL GARDEN PARTY

ON Saturday last the Bristol and Wessex Aeroplane Club held, at the Bristol Municipal Airport, a garden party and air display for the members of the British Association for the Advancement of Science who were visiting Bristol.

The Lord Mayor, accompanied by the Lady Mayoress, together with many civic dignitaries and members of the Bristol Corporation, were present, in addition to the members of the British Association, who numbered in all about 400. The Wessex Club officials set aside a section of the aerodrome for the use of the general public at a nominal entrance fee. The excellent patronage which this section received showed that the club's action was more than justified.

The weather conditions at the outset were not promising, but, fortunately, no rain occurred during the afternoon, and although, in addition to an overcast sky, there was a strong wind blowing across the aerodrome, these factors in no way detracted from the general excellence of the display and the entertainment of those present.

Capt. Broad opened the flying programme with a brilliant exhibition of aerobatics and inverted flight in a Moth (Gipsy).

The next item was a bombing competition for the Talbot O'Farrell Challenge Trophy. The target was in the centre of the aerodrome, and it was necessary for each competitor to drop three bombs, making a complete circuit after each. Whilst no direct hit was recorded, some were very near, and the spectators thoroughly appreciated the efforts of the competitors. The result was as follows:—First, C. R. Greenhill; second, E. B. W. Bartlett; third, Will Hay; fourth, Capt. Broad.

Mr. Greenhill therefore holds the challenge trophy, which was presented to him at the close of the proceedings by the Lord Mayor, for one year.

In a demonstration and "fly past" of one of each type of machine present on the aerodrome the pilots were given an opportunity of showing the capabilities of their respective machines in flight, and full advantage was taken of the facilities thus afforded. The machines taking part in this event included the D.H. Puss Moth, the Desoutter II, the

Blackburn Bluebird, and the Westland IV. Here again the spectators found much to interest them.

Later, at the close of the proceedings, Mr. John Trnum, of the British Russell Parachute Co., Ltd., made a safe and effective parachute descent to the aerodrome.

An excellent feature of the afternoon's programme was the demonstration by the Meteorological Department of the Air Ministry of the collection of data for, and the preparation of, weather forecasts.

In the showrooms of Merlyn Motors, Ltd., was an exceedingly interesting exhibition of engines, engine sections, aeroplane parts, and model aircraft.

The Westland Aircraft Works, Ltd., displayed a comprehensive collection of aeroplane parts of machines of their manufacture, including many fine examples of their main 'plane spars. In addition, there were for inspection several collections of photographs of their machines.

The Bristol Aeroplane Co., Ltd., exhibited the Bristol Jupiter and Titan engines, the gas starter unit, and many other engine parts and sections. In addition, on the aircraft side were examples of the "Bristol" system of steel-strip construction, together with a collection of photographs of the firm's products from 1910 to 1930.

A matter of general interest was the display of plans of four municipal airports of Great Britain—Manchester, Blackpool, Hull, and Bristol.

During the course of the afternoon almost everyone present paid a visit to this exhibition, and the interest shown and the favourable comments expressed paid tribute to the official organisers.

Particular mention should be made of the broadcasting arrangements for the announcement of the various items of the programme and the commentaries on the flying, which duties were skilfully carried out by Mr. Will Hay.

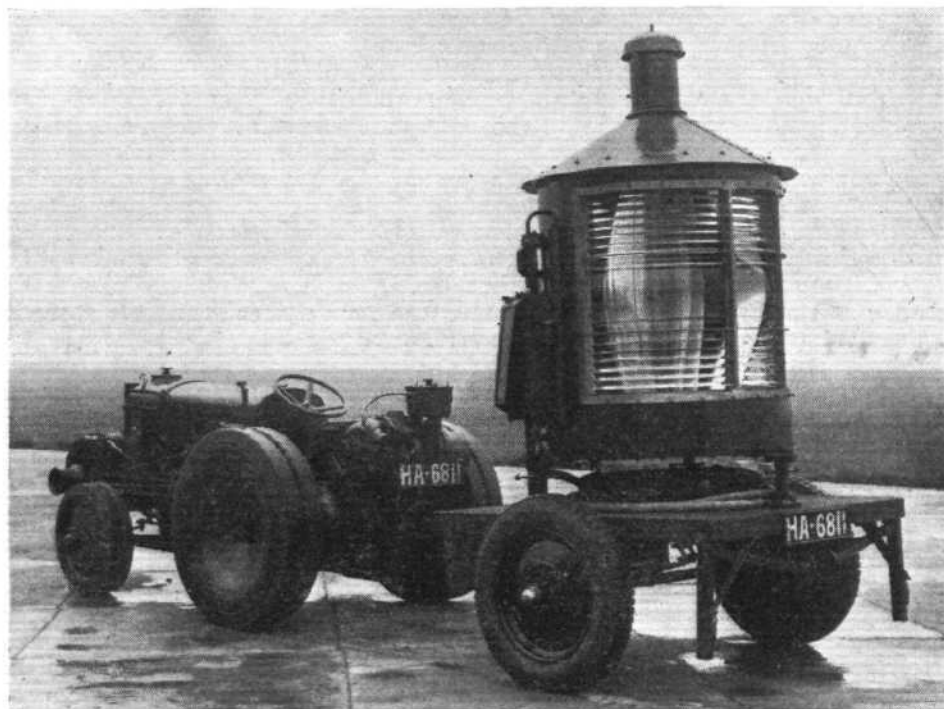
The members of the British Association had every reason to be very well pleased with the instruction and entertainment which they received as the guests of the Bristol and Wessex Club, who are to be congratulated on their efforts.

C. S. C.

NIGHT FLYING AT HESTON.—Arrangements have been made for night flying facilities at Heston Air Park. Chance Bros., Ltd., are illuminating the aerodrome with one of their portable floodlights and the usual boundary and obstruction lights will mark its limits.

Two of the School machines have been fitted with navigation lights and will be available for dual instruction, while facilities will be afforded any private owner for flying, should their machines be similarly fitted. On Monday night last, preliminary trials were carried out with great success

and flying was continued from 9 p.m. until long past midnight. This is the first opportunity that private owners will have had presented them to fly by night at such an aerodrome as Heston, that is away from the officialdom of Croydon or other government aerodromes. The costs will naturally be high, in fact, about double those of day-time flying, but since flying by night is far and away more attractive than flying by day it is probable that the machines at Heston will be in great demand for some time; we understand that a large number of hours has already been booked up.



THE CHANCE FLOODLIGHT

Our photograph shows the Chance Floodlight as it is fitted for use at Heston Air Park. The tractor is a Fordson with a winch in front, allowing other uses in the day-time, and the electric generator behind close to the floodlight. The light itself is of the third order (500 mm. focal distance) and is fitted with a 10-kw. lamp in a semi-automatic lamp slide with a spare lamp in the slide as a standby. This floodlight can also be supplied with alternative forms of tractor, such as the Crossley Kegresse or Vickers-Carden-Lloyd. (FLIGHT Photo.)

Shoreham Activities

FURTHER to our remarks concerning the Southern Aircraft Co.'s development at Shoreham, we understand that the Shoreham, Brighton, Hove and Worthing corporations are seriously considering the question of working in conjunction with S.A.C. with a view to establishing a municipal aerodrome there. It is proposed to add to the existing aerodrome the

adjoining piece of land—which, by the way, was the original aerodrome at Shoreham—extending the area available to about 150 acres. It should be noted that Shoreham possesses several "desirable" features as an aerodrome—there is, a railway station on one side, a main road on another, while seaplane possibilities are provided for by the river Adur, which also adjoins the aerodrome.



UNORTHODOXY: This Bellanca Sesquiplane, designed and built for the Chicago Daily News, is believed to be intended for an attack on the long-distance record. Note that the engines, Curtiss "Conquerors," are placed in tandem, one as a tractor and one as a pusher. The machine has a span of 83 ft. 2 in., a wing area of 912 sq. ft., a tare weight of 8,000 lb., and a load of approximately the equivalent of its own weight. With a gross weight of 15,500 lb., the top speed claimed is 160 m.p.h., and the cruising speed 132 m.p.h. The machine has been flown at this weight on either of the two engines, the speed with front engine being 116 m.p.h., and with rear engine running, 114 m.p.h.

INTERNATIONAL AERONAUTIC ORGANISATIONS

By JOHN JAY IDE

Technical Assistant in Europe, American National Advisory Committee for Aeronautics

(Concluded from page 1005.)

INTERNATIONAL CONGRESS ON AIR SAFETY

The French Committee for Aeronautical Propaganda headed by Marshal Lyautey, is organising, in connection with the Air Ministry, the first International Air Congress on Air Safety, which will take place in Paris in December, 1930.

At this conference will be studied all scientific and technical questions regarding air safety, all questions regarding the application of safety devices to various branches of air activity, and all questions of documentation and statistics capable of permitting the dissemination among the public of the idea of the extension of air safety.

The Royal Aeronautical Society will handle all questions affecting British participation at this Congress, the proceedings of which should be most interesting.

INTERNATIONAL AERONAUTIC FEDERATION (F.A.I.)

The International Aeronautic Federation was founded in 1905 as a union of the various national aero clubs, and for the following purposes:—

1. To control international aeronautical sport.
2. To encourage the development of international touring.
3. To assure the unity of the aeronautical movement and the safeguard of material and moral interests of aeronautics in all the countries adhering to the F.A.I.

One of its founders was the late Count Henri de La Vaulx, whose death has created a void which it will be well nigh impossible to fill.

Perhaps the most important work of the F.A.I. is the homologation of air records, no performance being recognised as valid without the approval of the F.A.I., which is only given after a thorough examination of the data submitted by the Aero Club of the country where the performance has taken place.

In 1906, the F.A.I. created pilots' licences for balloons and airships, and in 1908 aeroplanes were included.

One of the most useful achievements of the F.A.I. has been the creation of the International Customs Carnet recognised by the following 11 enlightened governments: Germany, Belgium, Spain, France, Great Britain, Italy, Japan, Netherlands, Roumania, Switzerland, and Czechoslovakia. As with motor cars, the use of the Customs Carnet obviates the payment of duties in each country visited, and is an inestimable boon for tourists.

Thirty nations belong to the F.A.I., the British representative being the Royal Aero Club.

The F.A.I. has held 27 conferences since its inception, the last one being in Paris, June, 1930.

INTERNATIONAL JURIDICAL COMMITTEE OF AVIATION (C.I.J.A.)

The International Juridical Committee of Aviation was founded in 1909. It has undertaken the question of drafting an international air code consisting of 71 articles for submission to the various governments in the hope that it will eventually be adopted. It is undeniable that since the formation of the C.I.T.E.J.A. the importance of the C.I.J.A. has sharply decreased, its resolutions being purely platonic, although frequently the work of the same legal experts who are officially representatives of the Governments on the C.I.T.E.J.A. and the Private Air Law Conferences.

At the Eighth Congress of the C.I.J.A., held at Madrid, May-June, 1928, members from 35 States were present. The work was divided into the following classes:—

- I. Régime of Postal Aircraft.
- II. Régime of Third Party Liability Insurance.
- III. Questions of risk and "force majeure."
- IV. Régime of airways.
- V. Revision of texts already adopted of the Air Code.*

The next conference is taking place at Budapest, September-October, 1930.

INTERNATIONAL AIR TRAFFIC ASSOCIATION (I.A.T.A.)

The International Air Traffic Association was founded at The Hague in August, 1919, and includes 22 air transport companies, practically every one of importance in Europe.

According to its statutes, the I.A.T.A. co-ordinates traffic on the various air lines and attempts to do away with hindrances to that traffic. It is especially careful to respect the independence of its members and to refrain from intervention in their internal affairs. Two of the achievements of the I.A.T.A. have been the production of an aerial timetable and the creation of a standardised bill of lading for international air transport.*

The 23rd Session of the I.A.T.A. was held at Stockholm in March, 1930, and the 24th Session is scheduled for September, 1930, at Antwerp.

AIR TRANSPORT COMMITTEE OF THE INTERNATIONAL CHAMBER OF COMMERCE

The Air Transport Committee of the International Chamber of Commerce was organised following the Second Congress of the Chamber in Rome, 1923, and since 1925 has been headed by Mr. P. E. Flandin, French Minister of Commerce. Since that time it has led an active campaign in favour of uniform private air law and of the unification and simplification of air postal regulations. Recently it has widened the scope of its work taking up the question of combined air-rail traffic and of barriers to air navigation.

In 1926-27 the Committee prepared the following three draft conventions concerning points of international law calling for uniform settlement:—

1. The liability of aircraft operators for damages caused on foreign territories to third parties.
2. Insurance of the crews of aircraft engaged in international air traffic.
3. Uniform air consignment notes (bills of lading) for international transport of goods by aircraft.

In 1928 the Committee took up the preparation of draft conventions on the nationality of aircraft and their seizure. The various draft conventions prepared by the Committee when approved by the Council of the International Chamber of Commerce, are submitted to the governments represented on the two official air law organisations, the International Conference of Private Air Law and the C.I.T.E.J.A.

In 1926 the Air Transport Committee made an inquiry regarding the existing state and shortcomings of air mail regulations and it was largely due to its efforts that the special Hague Conference was called in September, 1927, which resulted in a provisional "Air Mail Arrangement" pending the London Universal Postal Congress of 1929.

The question of combined air-rail transport was taken up by the Air Transport Committee in conjunction with the Railroad Transport Committee in 1927 and the results of its work were communicated to the International Railroad Union and the central office of the International Railroad Transport at Berne. Other work done by this committee regards the study of the establishment of great international air routes and such barriers to air traffic as customs, passport formalities, postal organisation, etc. Recommendations have been made that passports be replaced by official identity papers, and that free airports be established in the principal international trade centres.

Fifteen nations are represented on the Committee. There are three sub-committees on air law, air mail, air traffic barriers and aircraft exhibitions.†

The last general meeting of the Air Transport Committee took place at the Fifth Congress of the Chamber at Amsterdam, July, 1929, where the work of the Committee regarding public and private air law, insurance, air mail, combined air-rail traffic and free airports was discussed by the chairman.

* For full history of I.A.T.A. see Bulletin No. 12, published by the Secretariat at The Hague.

† See General Report of Co-ordination Committee of Transport and Communications Group, Amsterdam Congress, 1929, of International Chamber of Commerce, by Sir John Sandeman Allen.

* See Report of Eighth International Congress of Air Legislation, Madrid May 29-June 2, 1928, Per Orbem, Paris, 1929.

AIRISMS FROM THE FOUR WINDS

The Master of Sempill's Seaplane Tour

COLONEL the Master of Sempill, president of the Royal Aeronautical Society and an enthusiastic airman, is spending an aerial holiday touring the coast lines of Sweden, Denmark and Norway in his Puss Moth seaplane. Leaving the Welsh Harp, Hendon, where he keeps his seaplane moored, at 6.30 a.m. Thursday morning (September 4), he crossed the Channel to Calais and, flying up the coasts of France, Belgium, Holland, Germany and Denmark, reached Stockholm, a distance of 1,040 miles, in twelve hours; he encountered strong head winds on the last part of the journey (Malmo-Stockholm). Although this is essentially a holiday trip, the Master of Sempill is travelling in the rôle of an apostle of British aircraft, and will give exhibitions of flying at Copenhagen, Malmo, Gothenburg, Frederikshavn, Oslo and elsewhere. He hopes also to explore the Baltic Sea. Plans for the return journey have not been settled, but it is possible that the Master of Sempill may take the shorter route back by Scotland, which involves, however, a stretch of 300 miles of open sea. This, however, would enable him to call at one of the Scottish seats of his father, Lord Sempill, who is now in residence there.

The R.A.F. Scandinavian Cruise

THE four Supermarine "Southampton" flying boats of No. 201 Squadron, under Gp. Capt. R. E. C. Peirse, which are carrying out a month's tour of the Baltic States, reached Copenhagen from Esbjerg on September 5. The flying boats reached Stockholm on September 9, having taken six hours for the journey from Copenhagen. The squadron was met by the Master of Sempill in his Puss Moth, with the British Minister as passenger.

Italian Flight to S. America

It is probable that the projected flight of a complete squadron of the Italian Air Force to South America will set out during this month. It will be the most ambitious transatlantic flight so far attempted.

The squadron making the attempt is said to be the 63rd Autonomous Squadron, composed of about 20 machines. This squadron, under Maddalena, is now completing its tests at Orbitello, and a trial flight to Tripoli and back has been successfully carried out. It is not known whether General Balbo will himself make the flight or not.

Ireland's Increased Interest in Aviation

THE increased air-mindedness of the Irish people is shown by the number of visitors to see a Gipsy-Moth which is being exhibited at Messrs. Clery's, Ltd., Dublin. Col. Russell, late of the Irish Army Air Corps, is giving lectures of general aviation interest daily in an effort to make the public actively air-minded. It is expected that at the conclusion of the exhibition the machine will be purchased by the Irish Aero Club.

London-Connemara in a Moth

MR. NIGEL COHEN, who flew from London to Connemara via Wexford last week, was nearly the victim of an unpleasant

accident owing to an error in a telegram which was sent to him in London giving particulars of landing grounds near Carna where he wished to visit. The nearest spot for a reasonably safe landing is about 10 miles north of Carna, but owing to the mistake in the telegram Mr. Cohen was forced to make his landing on the best field he could see, which only gave him a runway of about 150 yards and was enclosed by a stone wall. The people of the district were very surprised to see the 'plane circling down towards the field, which was known to be very boggy. Fortunately, the pilot landed on a fairly firm spot and pulled up within a short distance of the wall, much to the relief of the locals who were thinking of calling an ambulance. He returned to London by the same route next day. His opinion of the telegram service is not recorded.

Irish Air Taxi Service

ON Friday evening of last week (August 29) the first Desoutter Mark II monoplane, EI-AAD (Irish Free State registration), for the Irish air taxi service arrived at Baldonnel aerodrome, Co. Dublin. The machine, which was piloted by Flying Officer L. S. Tindall, left Croydon on Thursday, but owing to bad visibility, was compelled to land at Sealand aerodrome, near Chester, and remain there for the night. A number of enthusiasts who are interested in the Iona National Aerial Taxi and Flying School Service, as the new organisation is called, were on the aerodrome to meet the machine when it landed. The engine, which is an inverted "Gipsy," aroused considerable interest and was praised highly by the pilot, who was delighted with the performance of the machine; the very flat gliding angle of the 'plane also caused a good deal of comment. During the evening the machine made a number of flips in order to satisfy the demand of the visitors. Both the Desoutter and the dual-control Gipsy-Moth belonging to the service are housed temporarily at Baldonnel, as arrangements for the purchase of Collinstown aerodrome by the company are not yet complete. Four other Desoutters are on order and it is expected that they will be delivered before the New Year. Flying Officer Tindall has become chief pilot and instructor, and further pilots are to be taken on as the machines arrive. The charge for the taxi service is 1s. per mile per passenger, and the instructional rate is £2 2s. per hour. Over the week-end the Desoutter was kept busy on joy-riding flights at Skerries, a Co. Dublin seaside resort.

Miss Amy Johnson

CONTINUING her *Daily Mail* tour, Miss Amy Johnson, C.B.E., visited Portsmouth on September 4, and on the following day she inspected *H.M.S. Nelson*, the flagship of the Atlantic Fleet, the aircraft carrier *Furious*, and Nelson's *Victory*. She subsequently returned to London by air. Owing to the unsatisfactory state of her health, Miss Johnson has been advised to abandon all public engagements and to take a prolonged rest after her Portsmouth visit. It is therefore impossible for her to carry out the remainder of the United Kingdom tour arranged for her by the *Daily Mail*.



A NEW AVRO V: In this new version of the "Five," the outboard engines have been raised and faired into the wing. The height of the cabin has been increased by about one foot. The cabin has seating accommodation for four passengers, and behind the cabin is a lavatory. The engines are Armstrong-Siddeley "Genet Majors."

New Air Records

It is reported that Mlle. Maryse Bartie, the French airwoman, has beaten the world's duration flight record for women (light planes) by remaining aloft for 37 hr. 28 min. 57 sec. at Le Bourget early this week. She thus beats the previous record of 35 hr. 46 min. set up by Mlle. Lena Bernstein. Another French pilot, M. Laulhe, is reported to have broken the world's record for long-distance flight in a closed circuit (light aeroplane class) by flying 2,730 km. (1,696 miles) at Le Bourget on September 5. The previous record of 2,511 km. (1,560 miles) was held by the Czechoslovak pilot, Vichetek.

Submarine Salves Seaplane

A FRENCH naval seaplane was forced down in the sea near Toulon on September 3, and the crew were rescued by fishing boats. As the machine was sinking the submarine *Romazotti*, which was close by, submerged and then came up under the plane, bringing the latter to the surface on its back near the conning-tower. The submarine then proceeded to port with the seaplane, which was only slightly damaged.

Austrian Air Liner Crashes in the Alps

AN Austrian air liner on the Vienna-Zurich air route failed to reach Zurich according to schedule on September 2. After a search by 11 aeroplanes the machine—a Junkers, which carried mails only—was located wrecked in the Bavarian Alps, 24 miles from Innsbruck. The pilot, Maj. Stojasavljevic, an Austrian war "ace," was killed.

The New York-Budapest Flight

Two Hungarian airmen, Capt. Endresz and Lieut. Magyar, are at Roosevelt Field, New York, in readiness for a flight to Budapest, for the £2,000 prize offered by Viscount Rothermere. Their machine, *Justice for Hungary*, is a Lockheed monoplane.

Canadian Coast-to-Coast Airmail

As a preliminary to a coast-to-coast airmail service in Canada, it is proposed to operate shortly a service between Vancouver, B.C., and Calgary, Alberta (about 400 miles) over the Rocky Mountains.

International Law and the Air

A CONFERENCE under the auspices of the International Law Association has been sitting in New York, and one of the subjects discussed has been an international code to regulate air traffic. The draft of the code recommends that all countries when not belligerent, should allow free passage over their territories to private aircraft.

Air Ministry Posters Wasted

THE Select Committee on Publications and Debates Reports has pointed out that 32 tons of recruiting posters ordered by the Air Ministry, at a cost of £3,449, have been returned as waste paper. The officer responsible left the service about six years ago. The waste is said to be due to the reduction of R.A.F. recruiting offices from 37 to 30, as a result of the economy orders in 1921.

U.S. Women in Commercial Aviation

MANY women hold important business positions in flying companies in the U.S.A. These include Mrs. M. W. Willebrandt, who was formerly an Attorney-General and is

now the legal adviser to the Washington Aviation Corporation. Miss A. Earhart holds the office of vice-president of the New York-Washington Airways, whilst the first woman airport manager has just received her appointment.

Mr. MacDonald Still Flying

MR. MACDONALD flew from Lossiemouth to Hendon on August 26, and drove thence to Downing Street. The flight was broken at Catterick (Yorkshire) to refuel, and the Prime Minister lunched at the R.A.F. Mess. Mr. MacDonald started to go back to Scotland by the same means on Friday August 29. He, however, ran into a violent thunderstorm before reaching Leuchars, where he was to have alighted and was compelled to return to Catterick. Unless an emergency arises which calls for his presence in London at an earlier date, the Prime Minister does not propose to come back to London again until next week. He continued to Lossiemouth by train.

Sir Sefton Brancker in Rome

SIR SEFTON BRANCKER, Director of Civil Aviation, had a conversation with General Balbo, the Italian Air Minister, on September 2, during which a preliminary settlement of certain important points at issue between the Italian and the British civil aviation authorities was reached. It is understood that the possibility of a reversion to the original route of the England-India air mail—from Genoa, along the Italian coast, to Greece—was one of the questions considered.

More Air Bombing in China

It is reported from Hong Kong that 200 people were killed as a result of a recent raid by Cantonese aircraft on the besieged city of Nanningfu, held by Kwangsi rebels.

Kingsford-Smith and the I.L.A. Trophy

THE 1928 Trophy awarded by the International League of Aviators to Wing-Commander Kingsford-Smith, for his flight from Australia to New Zealand, was presented to him on September 9 by the High Commissioner for Australia, at Australia House.

Aerial Signposts

THE International Air Navigation Conference at The Hague has decided to propose that every town of more than 10,000 inhabitants should erect a sign by which pilots of aeroplanes could find out over what town they were flying.

Soviet Airship's Cruises

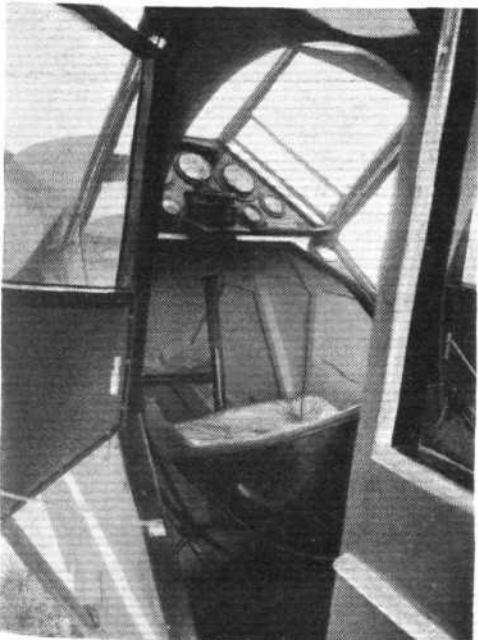
THE Soviet airship *Komsomolskaya Pravda* has recently made flights over Moscow. Reports state that the demonstration was made to lessen the effect of the Graf Zeppelin's visit to Moscow, which started on September 9.

An Italian Air Line

AN experimental Italian passenger-carrying seaplane service between Naples and Gibraltar, in conjunction with the Lloyd-Sabaudo steamship service between Naples and New York, via Gibraltar, began on August 31, when the first seaplane reached Gibraltar from Naples.

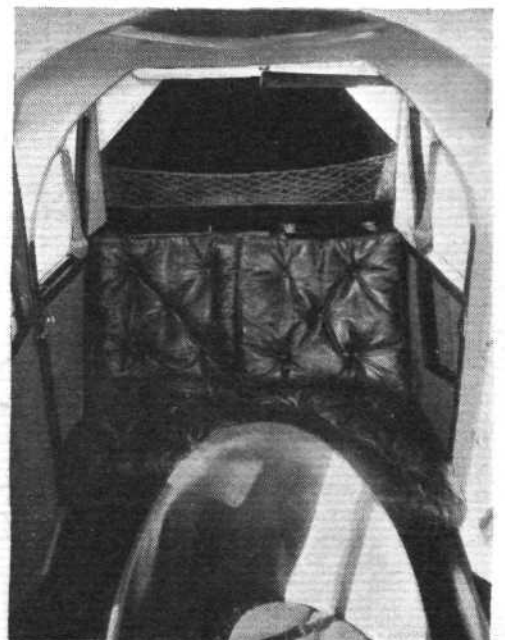
Italian Air Tour of Balkan States

A SQUADRON of Italian reconnaissance aeroplanes, under the command of Colonel Fougier, left Udine on September 5 on a tour of the Balkan States, where they will take part in the international aerobatics competition at Bucharest.



A VERY COMFORTABLE CABIN: The latest Desoutter, Mar II, has been designed with a view to giving real comfort to the occupants. The pilot's cockpit (shown on left) is roomy and the windows and large windscreen give an excellent view in all essential directions. The slightly staggered seats for two passengers (on right) are well placed to avoid fatigue, and air cushions help to make a flight of even very long duration less tiring than a train journey. A detailed illustrated description of the Desoutter Mark II appears elsewhere in this issue.

[(FLIGHT Photos.)



GLIDING

AN ENGLISH long-distance attempt.—The sail-plane Alert, in which Mr. R. G. Russell-Taylor hopes to make an attempt on the long-distance record, is to be exhibited at various towns in Yorkshire during the next few weeks.

Mr. Russell-Taylor hopes to make his attempt from the Harrogate and Ilkley district.

THE B.G.A. Journal has just been issued for August. This is now edited by Mr. Howard Flanders and contains some interesting matter. There is the first list of licensed pilots, articles by such well-known pilots as Mr. A. C. Haller and an extensive series of reports from the various club secretaries, and a fairly full report of the commission held at Frankfurt in June.

THE SAILPLANE CLUB.—Some useful practice was put in last Sunday, September 7, when there was a good attendance of flying members and visitors at Smallldole (Sussex). A strong westerly wind, gusty and variable, negated the attempts to gain the coveted 30 sec. duration, but gave pilots a deal of practice with aileron and rudder.

Among the many visitors seeking membership were two owners of light aeroplanes who found that landing facilities on the club's ground are excellent.

Many visitors were especially interested in the club's method of elementary ground-training, in which the glider is balanced on a pivoted fulcrum head to wind, and the pupil is taught to feel and know his controls before leaving the ground.

Interested readers should motor to Horton Farm, Smallldole, on Sundays, or apply to the Secretary, John Welding, 404, King's Road, Chelsea, S.W.

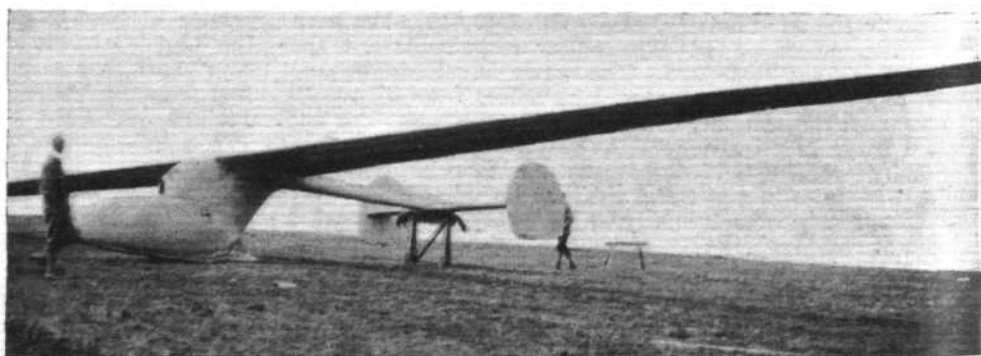
THE NORTH Staffordshire Gliding Club will be holding a gliding demonstration on Sunday, September 14, at the Cloud, Congleton, Cheshire, at 2 p.m. Mr. Lowe-Wylde and members of the Lancashire, Nottingham, and Wolverhampton Clubs will probably be in attendance with their gliders. Those interested in the North Staffordshire club should apply to the secretary, 71, York Street, Basford, Stoke-on-Trent.

A two-seater glider belonging to the Göttingen Academy Students, which was able to achieve a long duration flight at the Wasserkuppe by making use of the up currents under suitable cumulus clouds. The memorial to those killed at gliding is seen in the foreground.

A BELFAST Gliding and Aviation Club is to be formed. A meeting was held recently at the R.A.F. Reserve Headquarters in Donegall Square North and a loan of £30 was accepted with which to expedite the purchase of a suitable glider to start training on.

Mr. W. H. Blount has been chosen as Chairman and the B.G.A. has been approached with reference to affiliation.

This, it is believed, will be the first gliding club to be formed in Ireland.



The Austria. A new 103-ft. span cantilever glider which has been built for Herr Kronfeld. The wings are completely plywood covered, and the rudders can fold inwards together for use as air brakes.

THE NOTTINGHAM and Matlock Gliding Clubs now have a secretary to their joint councils in the person of Mr. L. Burbidge, whose headquarters are at the Welbeck Hotel, Nottingham.

Mr. A. H. Wilkins, the club instructor to the South Australia Gliding Club at Adelaide, South Australia, in a club glider at O'Halloran Hill. As in England many clubs have recently been formed in Australia.



THE ROYAL AIR FORCE



London Gazette, September 2, 1930

Group Captain His Royal Highness Edward Albert Christian George Andrew Patrick David, Prince of Wales and Duke of Cornwall, K.G., K.T., K.P., G.C.S.I., G.C.M.G., G.C.I.E., G.C.V.O., G.B.E., M.C., Personal A.D.C. to The King, is promoted to the rank of Air Marshal (Sept. 1).

General Duties Branch

Air Vice-Marshal H. C. T. Dowding, C.B., C.M.G., is appointed a Member of Air Council as Air Member for Supply and Research (Sept. 1) (vice Air Marshal Sir John Frederick Andrews Higgins, K.C.B., K.B.E., D.S.O., A.F.C.). Air Marshal Sir John Frederick Andrews Higgins, K.C.B., K.B.E., D.S.O., A.F.C., relinquishes his appointment as a Member of Air Council on retirement from the Royal Air Force (Sept. 1).

Flying Officer C. R. F. Wintringham (R.A.F.O.) is granted a permanent commn. as Pilot Officer with effect from Aug. 21, 1930, and with seniority in ranks stated (Sept. 1):—**FLIGHT LIEUTENANTS.**—P. S. Blockey, L. Dalton-Morris. **FLYING OFFICERS.**—B. H. Ashton, W. R. Baird, G. M. Buxton, W. G. Campbell, R. J. Carvell, W. G. Cheshire, F. G. H. Ewens, I. J. Fitch, F. S. Hodder, T. F. Moloney, N. C. Pleasance, J. H. Pool, H. J. G. E. Proud, G. H. Shaw, E. G. C. Stokes.

The undermentioned Pilot Officers on probation are confirmed in rank (June 28):—N. Stratton.

Aug. 30:—K. M. Cass, H. R. Clay, L. A. Cubitt, G. G. Dixon, D. W. H. Heath, H. de M. Middleton, R. C. Noble, R. J. Parkhouse, A. C. Richardson, J. B. Tatnall.

Pilot Officer L. E. Jarman is promoted to rank of Flying Officer (Aug. 22). The undermentioned are placed on retired list at their own request (Sept. 1):—Air Marshal Sir J. F. A. Higgins, K.C.B., K.B.E., D.S.O., A.F.C. Squadron Leader J. Kemper, M.B.E.

Flight Lt. R. A. Seaton is transferred to Reserve, Class A (Sept. 1). Flying Officer J. N. Young is transferred to Reserve, Class A (July 18). (Substituted for Gazette, July 25.) The short service commn. of Pilot Officer on probation J. N. Hepworth is terminated on cessation of duty (Sept. 2).

RESERVE OF AIR FORCE OFFICERS

General Duties Branch

A. J. Hewetson is granted a commn. in Class A.A. (ii) as a Pilot Officer on probation (Aug. 21). Flying Officer L. C. Burcher ceases to be employed with the Regular Air Force (Aug. 29). Flying Officer H. L. R. Gough is transferred from Class A to Class C (July 14). Flying Officer C. R. F. Wintringham relinquishes his commn. on appointment to a permanent commn. in the R.A.F. (Aug. 21). Flying Officer B. M. T. S. Leete, A.F.C., relinquishes his commn. on completion of service (Jan. 28).

Medical Branch

Flying Officer F. G. Mogg, M.R.C.S., L.R.C.P., of the Special Reserve, is promoted to rank of Flight Lieutenant (May 1).

ROYAL AIR FORCE INTELLIGENCE

Appointments.—The following appointments in the Royal Air Force are notified:—

General Duties Branch

Air Vice-Marshal: H. C. T. Dowding, C.B., C.M.G., to Air Ministry, on appointment as Air Member for Supply and Research; 1.9.30.

Air Commodores: The Hon. J. D. Boyle, C.B.E., D.S.O., to H.Q., Fighting Area, Uxbridge, to command; 1.9.30. P. F. M. Fellowes, D.S.O., to No. 23 Group H.Q., Grantham, on appointment as Air Officer Commanding; 6.9.30. P. B. Joubert de la Ferté, C.M.G., D.S.O., to R.A.F. Staff College, Andover, on appointment as Commandant; 7.9.30.

Group-Capt.: R. E. C. Peirse, D.S.O., A.F.C., to Half-Pay List; 8.7.30.

Squadron-Leaders: A. P. Maurice, D.F.C., to No. 21 Group H.Q., West Drayton; 7.8.30. S. S. Benson, A.F.C., to No. 5 Flying Training School, Sealand; 29.8.30. M. F. Browne, to Home Aircraft Depot, Henlow; 1.9.30. A. L. Gregory, M.B.E., M.C., to No. 99 Squadron, Upper Heyford; 8.7.30.

Flight-Lieuts.: C. E. V. Porter, to R.A.F. Depot, Uxbridge; 31.7.30. J. W. Baker, M.C., D.F.C., to No. 54 Sqn., Hornchurch; 25.8.30. A. W. Franklyn, M.C., to R.A.F. Depot, Uxbridge; 22.8.30. M. C. Dick, A.F.C., to No. 3 Flying Training School, Grantham; 1.9.30. J. S. Blomfield, to No. 3 Flying Training School, Grantham; 1.9.30. O. W. de Putron, to No. 9 Sqn., Manston; 11.8.30. M. Ballard, to R.A.F. Depot, Uxbridge; 25.7.30. C. K. Chandler, M.B.E., to H.Q., Coastal Area; 4.9.30. G. C. A. Armstrong, to No. 17 Sqn., Upavon; 1.9.30. L. W. Jarvis, to Armament and Gunnery School, Eastchurch; 28.8.30. E. J. L. Hope, A.F.C., to Marine Aircraft Experimental Estab., Felixstowe; 1.9.30. H. A. Hamersley, M.C., to Marine Aircraft Experimental Estab., Felixstowe; 1.9.30. A. T. S. Leguen de Lacroix, to No. 10 Group H.Q., Lee-on-Solent; 1.9.30. R. Melbourne, to Aeroplane and Armament Experimental Estab., Martlesham Heath; 28.8.30. J. C. C. Slater, to No. 2 Flying Training School, Digby; 1.9.30. L. Dalton-Morris, to Marine Aircraft Experimental Estab., Felixstowe; 1.9.30. T. H. French, D.F.C., to No. 502 (Ulster) Sqn., Aldergrove; 5.9.30. A. D. Davies to No. 4 Sqn., S. Farnborough; 11.9.30.

Flying Officers: G. P. Chamberlain, to Elec. and Wireless Sch., Cranwell; 2.8.30. J. V. Yonge, to Station Flight, Duxford; 1.9.30. C. H. R. Little, to Armament and Gunnery School, Eastchurch; 1.9.30. J. J. Owen, to No. 3 Flying Training Sch., Grantham; 1.9.30. H. D. Spreckley, to Armament and Gunnery Sch., Eastchurch; 26.7.30. W. C. Cooper, to Elec. and Wireless Sch., Cranwell; 1.9.30. T. J. Arbuthnot, to Elec. and Wireless Sch., Cranwell; 1.9.30. B. D. Nicholas, to Elec. and Wireless Sch., Cranwell; 1.9.30. H. J. G. E. Proud, to Aeroplane and Armament

Experimental Estab., Martlesham Heath; 1.9.30. R. D. Williams, to Marine Aircraft Experimental Estab., Felixstowe; 1.9.30. A. J. P. Groom, to R.A.F. Depot, Uxbridge; 1.9.30. J. C. Harcombe, to Armament and Gunnery Sch., Eastchurch; 21.8.30. F. M. V. May, to No. 1 Flying Training Sch., Netheravon; 1.9.30. I. J. Fitch, to No. 4 Sqn., S. Farnborough; 4.9.30. G. M. Beattie, to R.A.F. Depot, Uxbridge; 11.8.30. C. M. Heard, to Armament and Gunnery Sch., Eastchurch; 2.9.30. T. M. Abraham, to Armament and Gunnery Sch., Eastchurch; 2.9.30.

Pilot Officers: C. R. F. Wintringham, to No. 2 Flying Training Sch., Digby; 21.8.30, on appointment to a permanent commn. E. H. Coleman, to Coast Defence Co-operation Flight, Eastchurch; 29.8.30. The following Pilot Officers are posted to the Units shown, on appointment to permanent commns. from R.A.F. College, with effect from 26.7.30:—T. U. C. Shirley and W. R. Wills-Sandford, to No. 4 Sqn., S. Farnborough. R. B. Dashper and C. E. Littler, to No. 13 Sqn., Netheravon. A. G. Cleland and J. Whitehead, to No. 16 Sqn., Old Sarum. J. A. Chance, to No. 26 Sqn., Catterick. D. B. D. Field and J. S. Newcombe, to No. 12 Sqn., Andover. D. R. S. Bader and G. D. Stephenson to No. 23 Sqn., Kenley. D. V. Angell, to No. 29 Sqn., North Weald. C. E. J. Baines, to No. 32 Sqn., Kenley. M. B. Edwards and H. B. Wrigley, to No. 33 Sqn., Eastchurch. D. G. Vaughan-Fowler, to No. 41 Sqn., Northolt. P. B. Coote, to No. 43 Sqn., Tangmere. J. W. C. More, to No. 54 Sqn., Hornchurch. J. P. Massey and W. P. G. Pretty, to No. 100 Sqn., Bicester. N. C. Walker, to No. 207 Sqn., Bircham Newton.

Stores Branch

Flight Lieuts.: N. Dainty, to Marine Aircraft Experimental Estab., Felixstowe; 15.9.30. F. J. W. Humphreys, to H.Q., Coastal Area; 21.8.30.

Flying Officers: W. A. G. Goldsworthy, to Station H.Q., Hawkinge; 25.8.30. F. R. Lines, to No. 2 Stores (Ammunition) Depot, Altringham; 10.9.30. A. H. E. Frost, to No. 2 Stores (Ammunition) Depot, Altringham; 1.9.30. V. G. Pool, to No. 2 Stores (Ammunition) Depot, Altringham; 1.9.30. J. R. R. Harvey, M.M., to No. 1 Armoured Car Co., Iraq; 24.8.30.

Medical Branch

Flight Lieut.: R. H. Stanbridge, to Central Medical Estab.; 15.9.30. Flying Officer: M. T. O'Reilly, to Medical Training Depot, Halton, on appointment to a short service commn.; 18.8.30.

Dental Branch

Flying Officer: F. B. Sumerling, to H.Q., R.A.F., Halton; 3.9.30.

Accountant Branch

Flight Lieut.: V. G. A. Bennett, to No. 23 Group H.Q., Grantham; 17.9.30.

AIR MINISTRY NOTICES

AIR MINISTRY NOTICE TO AIRCRAFT OWNERS AND GROUND ENGINEERS

Fireproofing of Smoking Compartments

1. The attention of aircraft owners and ground engineers is drawn to the fact that the requirements of para. 6 Design Leaflet G.1 of Air Publication 1208 will be brought into effect in respect of all applications for Certificates of Airworthiness (i.e., applications for Type Certificates, applications for subsequent Certificates and applications for renewals of Certificates) as from the date of issue of this Notice.

2. The requirements of para. 6 Design Leaflet G.1 of Air Publication 1208 are as follows:—

"Smoking compartments."—In every compartment in which smoking is permitted, the furnishings, hangings, lagging and insulation shall, unless made of non-inflammable materials, be fireproofed in an approved manner." (No. 27 of 1930.)

* For further information regarding smoking in aircraft see Statutory Rules and Orders, 1923, No. 1508 (as amended by 1925, No. 1260, etc.), Article 9 (iii).

Napier "Lion" Engine: Tightening of Nuts on Master Connecting Rods

1. The attention of aircraft owners and ground engineers is directed to the special care necessary when tightening the nuts on master connecting rod studs of Napier "Lion" engines.

2. These nuts must be sufficiently tight to hold the bearing cap securely under running conditions, but not so tight as to cause stretching of the studs.

To ensure this correct tension the engine makers employ a spring loaded spanner set to give a maximum loading of 840 in./lb. (120 lb. at 7-in. radius).

3. It is very desirable to use a spanner such as that referred to in paragraph 2, but when this is not available, a box spanner and a tommy bar, the latter to be 7½ in. in length, can be used. The nuts must be tightened by applying a steady pressure to the spanner.

4. If any correction is necessary in order to obtain alignment between the split pin hole in the stud and the castellation of the nut, this must be effected by removing the nut and facing off the bottom face, care being taken that a true surface is obtained between this face of the nut and the bearing cap.

5. Studs for the "Lion" master connecting rod are now made from steel to B.E.S.A. Specification S/65. When any replacements are necessary, studs of this material, which are identifiable by a saw cut across the end, should be used.

6. Attention is drawn, in connection with the above, to Notices to Ground Engineers Nos. 3 of the year 1927, and 2 of the year 1929.

7. Cancellation.—Notice to Aircraft Owners and Ground Engineers No. 14 of the year 1930 is hereby cancelled. (No. 28 of 1930.)

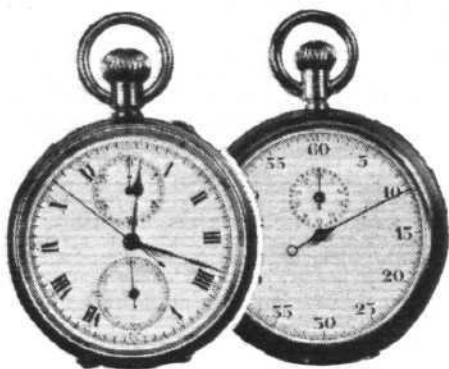
Slackness in the Operating Mechanism of Flying Controls

1. The attention of aircraft owners, ground engineers and all concerned is drawn to the fact that slackness in the operating mechanism of flying controls may, under certain circumstances, give rise to flutter either of the wing-aileron system or of the tail unit.

2. Frequent examination of control systems should be made, and immediate steps taken to remedy slackness when found. (No. 30 of 1930.)

STOP WATCHES

A LITTLE while back we referred to an inexpensive stop watch supplied by A. Arnold and Co., of 17, Elmcroft Avenue, Golder's Green, N.W.11, which we suggested might be found of use in a general sort of way at flying meetings. We are now informed that in response to enquiries for a stop watch more suited to the requirements of aircraft work, A. Arnold & Co. have produced two models—which we illustrate—embodying certain features that render them particularly suitable for this class of work.



The first of these watches (shown on the extreme left) is the "Chronograph Stop Watch," which is provided with independent fly-back mechanism, and with minutes, seconds, and one-fifth seconds stop. This is actually a £5 5s. model, but it is being marketed at £3 10s.

The second illustration shows Arnold's independent fly-back "Engineers' and Laboratory Recorder." This is fitted with lever movement and has minute and second hands only. It has start, stop, and fly-back actions, bringing both hands back to zero, actuated by successive depressions of the winding knob in the ordinary way. This is a sound and reliable stop watch for general timing and testing purposes, and is offered at 25s.



New Director of Vickers, Ltd.

VICKERS, LTD., announce that Col. J. B. Neilson, C.M.G., D.S.O., C.A., has been appointed Director and Deputy Chairman of the company in place of the late Mr. G. G. Sim, C.S.I., C.I.E. We are informed that, although Col. Neilson retains his appointment as Deputy-Chairman of Baldwins, Ltd., this does not imply there is any connection or working arrangement between the two companies.

The late Mr. G. G. Sim, C.S.I., C.I.E., Deputy-Chairman of Vickers, Ltd., and Vickers-Armstrongs, Ltd., passed away on August 19 in the Winchester House Nursing Home, Elgin, Scotland, after a very short illness, with pneumonia complicated by malaria. Mr. Sim, before becoming associated with Vickers, Ltd., was attached to the Indian Civil Service, and joined Vickers, Ltd., on July 1, 1926, and was appointed Secretary on July 15, 1926, subsequently becoming a Director of Vickers, Ltd., and Vickers-Armstrongs, Ltd., and of several of the associated companies. On March 11, 1929, he was appointed Deputy-Chairman of Vickers-Armstrongs, Ltd., and on November 6, 1929, Deputy-Chairman of Vickers, Ltd.

Model Engineering Exhibition

THE Model Engineering Exhibition opened at the Horticultural Hall on September 4 and will close tomorrow (Saturday). Aeronautical models are well represented and include a remarkable 18-cyl. radial aero engine built by Mr. Gerald Smith, of Nuneaton. This model is 15 in. diameter, weighs 24 lb., and develops 15 h.p. at 4,000 r.p.m. It took its maker six years to build and contains 3,000 parts! That it has won the Championship Cup, therefore, is not surprising.

A New Anti-Aircraft Gun

THE existence of a new type of anti-aircraft gun has been confirmed by the Admiralty, and trials have proved its efficiency.

It is described as a weapon that will greatly strengthen the defence of ships and land positions against aerial attack. It is understood to be a multi-barrelled gun of unusual dimensions, capable of exceedingly rapid fire.

Belfast Air Port

In our correspondence column recently it was pointed out that a recent plebiscite of Belfast citizens had vetoed a vote of £350 to complete the purchase of the Harbour Estate for an aerodrome. Thanks to the foresight of some northern business men, it is unlikely that Belfast will be aerodromeless for much longer. The Chamber of Commerce has voted

£50 a year and two other organisations are reported to be following suit. The Harbour Commissioners demand £600 for the site, which is land reclaimed from the sea. National Flying Services are prepared to equip and run an aerodrome, and have made an offer of £250 for the ground.

Cork-Killarney Air Service

It is reported that an English company are to commence a four months' summer service of 'planes between Cork and Killarney next year. Hustling American visitors arriving at Cork often complain about their being unable to see the beauties of Killarney owing to lack of time, and make numerous inquiries about chartering an aeroplane, only to find that there are none to be chartered.



PUBLICATIONS RECEIVED

Technical Notes: No. 336.—The Effect of Wing-Tip Floating Ailerons on the Autorotation of a Monoplane Wing Model. By M. Knight and C. J. Wenzinger. March, 1930. No. 337.—Pressure Distribution on the Tail Surfaces of a PW-9 Pursuit Airplane in Flight. By R. V. Rhode. April, 1930. No. 338.—Some Effects of Air and Fuel Oil Temperatures on Spray Penetration and Dispersion. By A. G. Gelalles. May, 1930. No. 339.—Refrigerated Wind-Tunnel Tests on Surface Coatings for Preventing Ice Formation. By M. Knight and W. C. Clay. May, 1930. No. 340.—Full-Scale Tests on Various Parts of Fairchild (FC-2W2) Cabin Monoplane. By W. H. Herrnstein, Jr. May, 1930. No. 341.—Calibration and Lag of a Friez-type Cup Anemometer. By R. M. Pinkerton, June, 1930. No. 343.—Strength in Shear of Thin Curved Sheets of Alclad. By G. M. Smith. June, 1930. U.S. National Advisory Committee for Aeronautics, Washington, D.C., U.S.A.



NEW COMPANIES REGISTERED

FORCED INDUCTION, Ltd., Capital £500, in £1 shares. Builders or manufacturers of and dealers in motors, motor cars, airships and aeroplanes, etc. Secretary: J. E. Butler. Solicitors: R. A. Rotherham and Co., Coventry.

HENDERSON AVIATION BUREAU, LTD., Room 4, Central Hall, Croydon Aerodrome, Surrey. Capital £100, in £1 shares. Instructors in aviation, aerial navigation and aerial and ground signalling, dealers in and importers and exporters of aircraft and aircraft engines of all kinds, transporters of passengers and goods by air, etc. First directors, Allen Havelock Charles and Charles Wm. John Allen.



AERONAUTICAL PATENT SPECIFICATIONS

(Abbreviations: Cyl. = cylinder; i.c. = internal combustion; m. = motors. The numbers in brackets are those under which the Specification will be printed and abridged, etc.)

APPLIED FOR IN 1929

Published September 11, 1930

- 8,589. BRITISH THOMSON-HOUSTON CO., LTD. Electrical method of and apparatus for indicating altitude of aircraft. (317,068.)
 14,770. REMO AERONAUTICAL CORPORATION. Flying devices. (312,160.)
 14,938. PETERS, LTD., and J. M. VAUGHAN. Starting and stopping control for i.c. engines. Diesel and semi-Diesel. (333,564.)
 15,700. H. R. RICARDO. Two-stroke i.c. engines. (333,638.)
 16,104. SPERRY GYROSCOPE CO., LTD., and A. L. RAWLINGS. Navigating compasses. (333,651.)
 18,594. W. GOHR. Flying machine with movable supporting planes. (333,680.)
 21,573. PIONEER INSTRUMENT CO., INC. Compasses. (333,708.)
 33,820. G. BOEHME. Model aeroplanes. (333,824.)
 34,495. R. HUGERSHOFF. Apparatus for continuously recording the path of flight of aircraft. (333,830.)
 35,217. H. JUNKERS. Construction of wings, tail units, etc. (333,833.)

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